

HOCPW68	HOCPW68R	1407	1 - 297	3582					
HOCPW81	HOCPW81R	1408	2 - 694	3583	Pro-42 to Ser-59, Asp-159 to Asn-168, Tyr-196 to Gly-205.	H0046: 9, L0777: 3, S0376: 2, H0050: 2, S0344: 2, S0126: 2, H0670: 2, S0152: 2, H0521: 2, H0542: 2, H0543: 2, H0341: 1, S0354: 1, S0358: 1, S0408: 1, H0619: 1, H0393: 1, H0592: 1, H0590: 1, S0474: 1, H0546: 1, H0551: 1, H0494: 1, S0440: 1, L0663: 1, H0660: 1, H0672: 1, H0631: 1, S0028: 1, L0757: 1, S0434: 1, L0581: 1 and L0593: 1.			
HOCPX01	HOCPX01R	1409	99 - 296	3584	Glu-24 to Ser-29.				
HOCPY70	HOCPY70R	1410	266 - 442	3585		H0617: 5, L0769: 4, L0776: 4, L0751: 4, L0747: 4, L0774: 3, H0685: 2, H0657: 2, H0483: 2, H0486: 2, H0052: 2, H0674: 2, H0494: 2, L0775: 2, L0518: 2, H0682: 2, L0603: 2, H0170: 1, S6024: 1, S0116: 1, H0664: 1, H0306: 1,			

H0039: 2, H0644: 2, H0617: 2, H0032: 2, H0673: 2, L0763: 2, L0646: 2, L0804: 2, L0776: 2, H0627: 2, L0777: 2, L0758: 2, L0362: 2, H0506: 2, L0615: 1, H0685: 1, H0656: 1, L0778: 1, L0785: 1, H0341: 1, H0669: 1, H0662: 1, H0402: 1, S0356: 1, T0008: 1, S0476: 1, H0351: 1, H0299: 1, H0486: 1, H0013: 1, L0021: 1, T0082: 1, H0581: 1, H0421: 1, H0235: 1, H0596: 1, L0040: 1, H0178: 1, H0563: 1, H0012: 1, H0328: 1, H0031: 1, H0068: 1, H0135: 1, T0067: 1, H0264: 1, H0488: 1, H0100: 1, H0494: 1, S0352: 1, S0448: 1, S0450: 1, H0509: 1, S0472: 1, H0647: 1, H0695: 1, L0764: 1, L0765: 1, L0767: 1, L0768: 1.
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							L0364: 1, L0766: 1, L5568: 1, L0552: 1, L0376: 1, L0653: 1, L0655: 1, L0529: 1, H0144: 1, H0520: 1, H0690: 1, H0682: 1, H0684: 1, H0435: 1, H0658: 1, S0392: 1, H0478: 1, H0626: 1, H0631: 1, L0744: 1, L0751: 1, L0749: 1, L0779: 1, L0755: 1, S0308: 1, H0707: 1, L0596: 1, L0593: 1 and S0384: 1.			
HOCQA26	HOCQA26R	1413	1 - 384	3588						
HOCQA37	HOCQA37R	1414	13 - 276	3589						
HOCQA86	HOCQA86R	1415	3 - 455	3590						
HOCQB18	HOCQB18R	1416	3 - 473	3591	Met-1 to Leu-6, Gly-19 to Lys-26, Ala-32 to Lys-38, Ala-89 to Leu-94, Gly-134 to Val-141.					
HOCQB48	HOCQB48R	1417	1 - 588	3592	Met-36 to Pro-42, Pro-49 to Thr-55, Leu-104 to Met-110, Trp-112 to Asn-117, Glu-122 to Tyr-134, Gln-142 to Ser-148, Leu-174 to Tyr-180.					

HOCQC57	HOCQC57R	1418	1 - 237	3593		L0766: 6, L0752: 5, L0794: 4, H0039: 3, H0622: 3, S0440: 3, L0770: 3, L0809: 3, H0547: 3, L0747: 3, S0356: 2, H0587: 2, H0427: 2, H0156: 2, H0015: 2, H0031: 2, L0771: 2, L0662: 2, L0768: 2, L0804: 2, L0659: 2, L0666: 2, L0664: 2, L0438: 2, H0660: 2, L0740: 2, L0754: 2, L0745: 2, L0749: 2, L0731: 2, L0593: 2, H0624: 1, H0657: 1, H0656: 1, H0370: 1, H0438: 1, T0040: 1, L0586: 1, T0114: 1, H0036: 1, S0010: 1, H0052: 1, H0545: 1, H0050: 1, H0014: 1, H0373: 1, L0163: 1, H0051: 1, H0071: 1, T0010: 1, H0030: 1, H0316: 1, H0598: 1, H0090: 1, S0038: 1, H0561: 1, H0509: 1, H0130: 1, H0633: 1, S0002: 1,		
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							L0500: 1, L0761: 1, L0764: 1, L0773: 1, L0649: 1, L0375: 1, L0805: 1, L0653: 1, L0544: 1, L0545: 1, L0792: 1, L0663: 1, L0665: 1, H0670: 1, H0666: 1, H0521: 1, L0743: 1, L0439: 1, L0777: 1, L0755: 1, L0758: 1, L0596: 1, L0589: 1, L0592: 1, H0216: 1, H0542: 1, H0423: 1 and H0352: 1.		
HOCQC71	HOCQC71R	1419	216 - 521	3594		Thr-21 to Gly-28, Lys-36 to Gly-43, Ala-73 to His-85.			
HOCQD10	HOCQD10R	1420	2 - 529	3595					
HOCQD19	HOCQD19R	1421	3 - 335	3596		Gly-70 to Gly-79.	H0556: 2, H0519: 2, S0116: 1, H0370: 1, H0063: 1, L0800: 1, L0803: 1, L0383: 1, L0789: 1, H0593: 1, H0659: 1, H0660: 1, L0777: 1 and H0665: 1.		
HOCQD38	HOCQD38R	1422	290 - 550	3597			L0748: 49, L0766: 22, H0457: 12, L0439: 12, H0581: 11, L0659: 11, L0754: 11, L0745: 10, L0662: 9, L0665: 9,		

H0710: 9, H0556: 8, L0666: 8, H0521: 8, L0751: 8, L0758: 8, L0592: 8, H0486: 7, H0318: 7, L0774: 7, L0664: 7, S0360: 6, H0510: 6, L0731: 6, H0423: 6, H0638: 5, H0580: 5, H0427: 5, H0050: 5, H0271: 5, L0800: 5, H0670: 5, H0552: 5, L0581: 5, H0506: 5, H0402: 4, S0358: 4, H0179: 4, L0768: 4, L0803: 4, L0438: 4, H0547: 4, H0658: 4, S0328: 4, H0555: 4, H0436: 4, L0747: 4, L0750: 4, L0777: 4, L0759: 4, L0593: 4, S0134: 3, H0657: 3, H0663: 3, H0305: 3, S0420: 3, H0619: 3, H0635: 3, H0098: 3, H0575: 3, S0003: 3, H0264: 3, H0413: 3, H0623: 3, H0494: 3, H0641: 3, L0763: 3, L0667: 3, L0794: 3, L0775: 3,					
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1208

L0744: 2, L0740: 2, L0746: 2, L0757: 2, H0445: 2, L0591: 2, H0543: 2, H0422: 2, H0220: 1, H0222: 1, H0685: 1, S0430: 1, H0650: 1, L0808: 1, S0116: 1, S0212: 1, S0001: 1, H0662: 1, H0459: 1, S0418: 1, S0408: 1, H0393: 1, L0717: 1, H0369: 1, H0261: 1, H0392: 1, H0409: 1, H0574: 1, H0632: 1, L0623: 1, T0039: 1, T0109: 1, H0250: 1, H0036: 1, S0474: 1, T0071: 1, H0421: 1, S0049: 1, H0052: 1, H0309: 1, H0204: 1, H0597: 1, H0544: 1, H0546: 1, H0024: 1, H0200: 1, H0071: 1, T0010: 1, H0083: 1, H0355: 1, S0318: 1, S0250: 1, H0039: 1, L0483: 1, H0031: 1, H0553: 1, H0644: 1, H0182: 1, H0032: 1, H0388: 1.
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HOCQD42	HOCQD42R	1423	1 - 315	3598	Ala-1 to Gly-8, Leu-26 to Ser-40, Pro-57 to Leu-95.	H0040: 1, H0380: 1, H0280: 1, H0560: 1, H0561: 1, L0065: 1, H0652: 1, S0426: 1, L0369: 1, L0639: 1, L0637: 1, L0772: 1, L0642: 1, L0765: 1, L0378: 1, L0805: 1, L0607: 1, L0629: 1, L0384: 1, L0647: 1, L0789: 1, L0790: 1, S0052: 1, S0216: 1, H0144: 1, H0593: 1, S0126: 1, H0689: 1, H0682: 1, H0435: 1, H0659: 1, H0660: 1, H0648: 1, H0672: 1, H0518: 1, S0152: 1, S0406: 1, H0187: 1, H0576: 1, S0392: 1, H0478: 1, H0345: 1, S0027: 1, L0756: 1, S0031: 1, H0444: 1, H0707: 1, S0434: 1, L0599: 1, S0011: 1, H0668: 1, H0667: 1, S0196: 1 and L0697: 1.		
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HOCQD45	HOCQD45R	1424	38 - 475	3599	Arg-11 to Arg-20, Glu-61 to Ser-66, Pro-114 to Ala-125.			
HOCQE35	HOCQE35R	1425	3 - 410	3600				
HOCQG94	HOCQG94R	1426	3 - 317	3601	Glu-58 to Arg-63.			
HOCQH81	HOCQH81R	1427	144 - 335	3602				
HOCQI31	HOCQI31R	1428	1 - 324	3603	Lys-21 to His-26, Arg-47 to Val-55, Ser-65 to Gly-70, Ala-76 to Gly-81.	S0126: 23, H0038: 16, S0372: 15, H0550: 12, H0031: 12, H0545: 10, L0659: 10, S0360: 9, L0662: 9, L0757: 9, L0758: 9, H0551: 8, S0322: 8, H0431: 7, L0666: 7, L0750: 7, H0486: 6, H0546: 6, S0440: 6, L0776: 6, H0549: 5, H0620: 5, L0664: 5, H0593: 5, H0672: 5, H0539: 5, S0380: 5, H0555: 5, L0747: 5, S0358: 4, S0007: 4, H0409: 4, S0010: 4, H0039: 4, H0622: 4, H0616: 4, L0769: 4, L0641: 4, L0655: 4, H0696: 4, L0731: 4, S0040: 3, S0212: 3, S0418: 3, S0045: 3, S0280: 3, H0012: 3, H0090: 3,		

1212

S0116: 1, S0298: 1, H0663: 1, S0420: 1, S0410: 1, S0468: 1, H0369: 1, H0453: 1, H0370: 1, H0392: 1, H0602: 1, H0587: 1, T0039: 1, H0013: 1, H0004: 1, H0052: 1, H0309: 1, H0046: 1, H0041: 1, H0081: 1, H0011: 1, H0049: 1, T0079: 1, H0375: 1, S0250: 1, S0214: 1, H0252: 1, H0428: 1, T0006: 1, H0032: 1, H0708: 1, H0316: 1, H0598: 1, H0400: 1, H0100: 1, H0494: 1, L0475: 1, S0014: 1, S0015: 1, H0625: 1, S0382: 1, H0646: 1, L0762: 1, L0763: 1, L0630: 1, L0646: 1, L0768: 1, L0649: 1, L0806: 1, L0656: 1, L0809: 1, L0647: 1, L0663: 1, L0665: 1, S0374: 1, H0691: 1, H0547: 1, H0682: 1, H0521: 1, S0027: 1,					
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HOCQJ35	HOCQJ35R	1429	61 - 546	3604	Leu-16 to Pro-22, Val-30 to Asp-36.	L0748: 1, L0756: 1, L0777: 1, L0752: 1, L0755: 1, H0343: 1, H0707: 1, L0605: 1, H0668: 1, S0196: 1 and H0506: 1.			
						H0046: 12, L0771: 7, L0774: 3, L0651: 3, L0806: 3, L0666: 3, L0565: 3, L0748: 3, S0444: 2, S0408: 2, H0393: 2, L0372: 2, L0662: 2, L0766: 2, L0659: 2, L0664: 2, L0744: 2, L0731: 2, H0294: 1, S0442: 1, S0278: 1, H0549: 1, L0021: 1, H0085: 1, H0234: 1, H0596: 1, H0597: 1, H0546: 1, H0024: 1, S0003: 1, H0252: 1, H0383: 1, H0674: 1, H0068: 1, H0487: 1, H0413: 1, T0069: 1, H0100: 1, H0494: 1, H0625: 1, S0352: 1, L0761: 1, L0772: 1, L0646: 1, L0800: 1, L0764: 1, L0773: 1, L0794: 1,			

							L0649: 1, L0803: 1, L0805: 1, L0653: 1, L0515: 1, L0367: 1, L0665: 1, S0374: 1, H0684: 1, H0660: 1, S0328: 1, S0044: 1, S0404: 1, L0740: 1, L0747: 1, L0757: 1, L0758: 1, S0260: 1 and S0276: 1.			
HOCQM24	HOCQM24R	1430	3 - 230	3605	Gly-2 to Gly-12, Gly-14 to Asn-28, Met-32 to Gly-49, Lys-54 to Phe-76.					
HODAF78	HODAF78R	1431	2 - 76	3606						
HODBT55	HODBT55R	1432	234 - 395	3607	Ala-1 to Ser-8.		H0328: 1 and H0435: 1.			
HODCT68	HODCT68R	1433	266 - 484	3608	Gln-1 to Pro-16.		L0493: 4, L0794: 3, H0497: 2, H0038: 2, L0766: 2, L0809: 2, L0779: 2, L0777: 2, L0759: 2, L0601: 2, H0170: 1, S0114: 1, H0341: 1, H0125: 1, S0046: 1, H0592: 1, H0587: 1, H0559: 1, H0156: 1, H0328: 1, H0616: 1, H0386: 1, H0538: 1, H0529: 1, L0769: 1, L0764: 1,			

HODCZ52	HODCZ52R	1434	2 - 139	3609			L0775: 1, L0666: 1, H0659: 1, H0518: 1, L0741: 1, L0439: 1, L0747: 1, L0593: 1, L0594: 1, H0665: 1 and H0667: 1.		
							AR089: 19, AR104: 18, AR060: 12, AR096: 7, AR055: 4, AR061: 3 L0751: 29; H0549: 17, H0550: 17, L0666: 9, L0747: 8, H0689: 7, H0690: 7, H0682: 7, H0615: 6, H0670: 6, H0328: 5, H0150: 4, H0660: 4, S0330: 4, S0044: 4, L0362: 4, H0597: 3, H0688: 3, L0764: 3, L0657: 3, L0809: 3, L0753: 3, L0758: 3, L0759: 3, H0431: 2, H0046: 2, T0067: 2, H0059: 2, H0647: 2, L0774: 2, L0805: 2, L0783: 2, L0438: 2, H0593: 2, H0648: 2, H0672: 2, S0328: 2, S0404: 2, L0744: 2, L0779: 2,		

HODDI57	HODDI57R	1435	3 - 194	3610	Gly-7 to Glu-41.	S0436: 2, H0662: 1, S0442: 1, S0444: 1, S0408: 1, S0007: 1, H0461: 1, H0085: 1, H0009: 1, S0024: 1, H0188: 1, H0039: 1, H0604: 1, H0424: 1, H0169: 1, H0674: 1, L0520: 1, L5569: 1, L0803: 1, L0804: 1, L0775: 1, L0658: 1, L0634: 1, L0542: 1, L0528: 1, L2269: 1, L0663: 1, L0665: 1, H0684: 1, H0659: 1, H0658: 1, S0380: 1, S0406: 1, H0555: 1 and L0780: 1.		
HODDI57	HODDI57R	1435	3 - 194	3610	Gly-7 to Glu-41.	L0794: 4, L0803: 4, H0328: 3, L0779: 3, L0515: 2, L0809: 2, H0144: 2, L0754: 2, L0756: 2, L0759: 2, H0171: 1, S0282: 1, H0346: 1, S0222: 1, H0441: 1, H0486: 1, H0069: 1, H0052: 1, H0544: 1, H0266: 1, L0598: 1, L0638: 1, L0766: 1, L0650: 1,		

								L0774: 1, L0805: 1, L0776: 1, L0657: 1, L0559: 1, L0659: 1, L0543: 1, L0438: 1, H0682: 1, S0328: 1, L0745: 1, L0750: 1, L0777: 1, L0752: 1, L0758: 1, H0343: 1 and H0665: 1.			
HODEJ47	HODEJ47R	1436	11 - 295	3611	Leu-7 to Thr-16.			L0754: 20, L0759: 6, L0794: 4, H0615: 3, L0438: 3, S0126: 3, S0360: 2, H0411: 2, H0050: 2, H0163: 2, S0422: 2, L0665: 2, L0748: 2, L0747: 2, L0749: 2, L0780: 2, L0755: 2, H0595: 2, L0361: 2, H0170: 1, H0686: 1, H0638: 1, S0418: 1, S0358: 1, S0376: 1, H0586: 1, H0587: 1, H0009: 1, H0024: 1, H0328: 1, H0428: 1, H0625: 1, S0210: 1, L0598: 1, L0667: 1, L0764: 1, L0662: 1, L0766: 1, L0649: 1, L0650: 1, L0805: 1, L0655: 1,			

							L0789: 1, L0663: 1, H0144: 1, S0330: 1, S0028: 1, L0751: 1, L0750: 1, L0731: 1, L0758: 1 and L0605: 1.			
HODEO42	HODEO42R	1437	1 - 54	3612						
HODEP78	HODEP78R	1438	187 - 432	3613			L0803: 7, L0439: 4, L0663: 3, L0749: 3, H0615: 2, L0769: 2, L0794: 2, L0774: 2, L0748: 2, L0777: 2, L0752: 2, L0142: 1, H0646: 1, L0767: 1, L0804: 1, L0784: 1, L0805: 1, L0789: 1, L0666: 1, L0438: 1, H0670: 1 and L0589: 1.			
HODEQ42	HODEQ42R	1439	349 - 444	3614	Asn-1 to Ser-6, Thr-22 to Asn-32.		H0615: 1 and S0031: 1.			
HODER57	HODER57R	1440	92 - 289	3615						
HODES60	HODES60R	1441	2 - 421	3616			L0662: 2, H0615: 1, L0761: 1, L0791: 1, H0519: 1, L0752: 1 and L0758: 1.			
HODEU47	HODEU47R	1442	153 - 347	3617	Ser-1 to Ser-9, Asp-15 to Ala-21.		H0615: 2			
HODEV69	HODEV69R	1443	370 - 546	3618						
HODEW54	HODEW54R	1444	374 - 568	3619			H0328: 1 and H0615: 1.			

HODEW79	HODEW79R	1445	309 - 566	3620				
HODEX45	HODEX45R	1446	220 - 423	3621			H0615: 2 and L0532: 1.	
HODEX69	HODEX69R	1447	58 - 231	3622			H0615: 4 and L0659: 1.	
HODEX79	HODEX79R	1448	1 - 432	3623				
HODFC44	HODFC44RP 00	1449	1 - 207	3624	Ala-9 to Asp-21, Thr-31 to Arg-37.		L0747: 16, L0754: 10, L0751: 7, L0757: 7, H0657: 6, L0748: 6, L0771: 5, H0659: 5, L0740: 5, L0755: 5, H0594: 4, L0744: 4, H0341: 3, S0358: 3, S0278: 3, H0333: 3, H0615: 3, S0366: 3, L0520: 3, L0775: 3, L0517: 3, S0374: 3, S0328: 3, L0731: 3, H0136: 3, T0002: 2, S0218: 2, S0116: 2, S0354: 2, S0376: 2, H0637: 2, S0045: 2, H0370: 2, L0622: 2, H0156: 2, H0599: 2, H0545: 2, H0266: 2, H0039: 2, H0617: 2, H0132: 2, L0769: 2, L0665: 2, H0672: 2, H0539: 2, H0134: 2, L0756: 2, L0752: 2,	

L0758: 2, H0624: 1, H0170: 1, H0265: 1, S6024: 1, H0656: 1, H0255: 1, H0661: 1, H0125: 1, H0192: 1, S0418: 1, S0420: 1, S0360: 1, H0580: 1, H0393: 1, S0300: 1, H0411: 1, H0369: 1, H0261: 1, S0222: 1, L0623: 1, S0280: 1, H0618: 1, H0318: 1, H0581: 1, H0421: 1, L0738: 1, H0086: 1, L0471: 1, H0024: 1, H0082: 1, L0043: 1, S0214: 1, H0031: 1, H0673: 1, H0068: 1, H0038: 1, H0634: 1, H0087: 1, T0067: 1, H0412: 1, H0100: 1, H0512: 1, S0144: 1, S0142: 1, S0344: 1, S0422: 1, H0517: 1, L0762: 1, L0763: 1, L0761: 1, L0764: 1, L0768: 1, L0766: 1, L0649: 1, L0774: 1, L0651: 1, L0776: 1, L0655: 1, L0526: 1,					
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							L0518: 1, L0783: 1, L0809: 1, L0666: 1, L0663: 1, H0144: 1, H0593: 1, H0682: 1, H0648: 1, S0044: 1, H0214: 1, L0439: 1, L0749: 1, L0750: 1, L0753: 1, H0444: 1, H0445: 1, H0595: 1, L0581: 1, L0593: 1 and H0542: 1.		
HODFD90	HODFD90R	1450	3 - 281	3625	Ser-22 to Gln-38.		L0794: 3, L0776: 2, S0358: 1, H0615: 1, H0538: 1, L0662: 1, L0803: 1, L0805: 1, L0791: 1, L0663: 1, S0374: 1, H0658: 1 and L0758: 1.		
HODFE81	HODFE81R	1451	296 - 433	3626					
HODFI68	HODFI68R	1452	293 - 409	3627			L0766: 2, H0328: 1 and H0615: 1.		
HODFI14	HODFI14R	1453	2 - 259	3628	Phe-45 to Tyr-60, Arg-67 to Glu-74.				
HODFI52	HODFI52R	1454	97 - 225	3629	Pro-18 to Pro-23, Pro-37 to Val-42.		H0328: 1 and H0615: 1.		
HODFK30	HODFK30RA	1455	1 - 69	3630					
HODFK89	HODFK89R	1456	16 - 324	3631	Lys-69 to Asp-81.				
HODFL50	HODFL50R	1457	1 - 165	3632			H0615: 2, H0370: 1, H0328: 1 and L0749: 1.		

HODFL75	HODFL75R	1458	304 - 393	3633	Ala-2 to Trp-9.			
HODFO16	HODFO16R	1459	251 - 565	3634		H0615: 2		
HODFO64	HODFO64R	1460	1 - 195	3635	Glu-12 to Gly-27, Gln-37 to Tyr-49.	L0666: 3, H0615: 2, S0116: 1, H0675: 1, H0012: 1, L0055: 1, S0438: 1, L0763: 1, L0667: 1, L0649: 1, L0803: 1, L0804: 1, L0659: 1, H0689: 1, H0659: 1, L0752: 1 and S0026: 1.		
HODFP51	HODFP51R	1461	11 - 439	3636	His-33 to Leu-39, Gly-49 to Glu-56, Ser-60 to Lys-143.			
HODFQ19	HODFQ19R	1462	1 - 519	3637	Leu-33 to Val-40, Lys-144 to Glu-152.			
HODFQ37	HODFQ37R	1463	2 - 535	3638	His-1 to Lys-12, Gln-17 to Leu-27, Val-69 to Asp-76, Asp-122 to Trp-128, Asp-141 to Glu-146, Ser-155 to His-164.			
HODFR72	HODFR72R	1464	84 - 512	3639		H0615: 2		
HODFU24	HODFU24R	1465	372 - 695	3640				
HODFU78	HODFU78R	1466	2 - 130	3641				
HODFV22	HODFV22R	1467	291 - 467	3642	Pro-1 to Asp-7.			
HODFV60	HODFV60R	1468	7 - 168	3643		H0328: 1, H0615: 1 and L0365: 1.		
HODFV69	HODFV69R	1469	64 - 210	3644		H0615: 3, H0693: 2,		

						H0266: 1, S0002: 1, L0790: 1, H0547: 1, S0152: 1, H0521: 1, H0696: 1, L0366: 1, S0194: 1 and S0276: 1.		
HODFV79	HODFV79R	1470	360 - 623	3645				
HODFV82	HODFV82R	1471	14 - 154	3646				
HODFV95	HODFV95R	1472	587 - 718	3647				
HODFY38	HODFY38R	1473	22 - 309	3648	Lys-8 to Tyr-26, Thr-67 to Met-73.	H0615: 2, S0444: 1, L0438: 1 and L0439: 1.		
HODGA29	HODGA29R	1474	186 - 308	3649	Val-1 to Ser-9, Gln-22 to Ser-29.			
HODGB69	HODGB69R	1475	3 - 95	3650				
HODGB78	HODGB78R	1476	91 - 225	3651	Thr-14 to Asn-19.			
HODGE22	HODGE22R	1477	129 - 407	3652				
HODGH30	HODGH30R	1478	25 - 132	3653	Thr-7 to Ser-14, Pro-28 to Gly-36.			
HODGH43	HODGH43R	1479	36 - 128	3654	His-8 to Gly-18, Phe-25 to Gly-30.			
HODGH65	HODGH65R	1480	2 - 166	3655		H0615: 2		
HODGL65	HODGL65R	1481	127 - 300	3656		L0754: 2, L0756: 2, H0615: 1, L0438: 1 and L0747: 1.		
HODGN53	HODGN53R	1482	2 - 583	3657	Lys-1 to Thr-7, Ser-13 to Arg-33, Val-56 to Lys-63, Phe-143 to Thr-148.	L0741: 4, H0615: 2, L0769: 2, L0793: 2, H0328: 1, S0144: 1, L0794: 1, L0499: 1, L0805: 1, L0438: 1 and L0755: 1.		

HODGO02	HODGO02R	1483	361 - 561	3658				
HODGO09	HODGO09R	1484	1 - 348	3659			H0615: 2 and L0779: 1.	
HODGO21	HODGO21R	1485	2 - 193	3660	Glu-23 to Val-28, Arg-56 to Ser-64.			
HODGP53	HODGP53R	1486	1 - 198	3661				
HODGQ52	HODGQ52R	1487	9 - 131	3662				
HODGS83	HODGS83R	1488	205 - 354	3663				
HODGW91	HODGW91R	1489	182 - 3	3664	Lys-1 to Gly-12, Pro-25 to Thr-37, Ser-46 to Gly-51.			
HODGX46	HODGX46R	1490	358 - 513	3665			H0615: 3 and L0766: 1.	
HODGX91	HODGX91R	1491	219 - 572	3666				
HODGY90	HODGY90R	1492	379 - 573	3667				
HODGZ63	HODGZ63R	1493	1 - 504	3668	Pro-30 to Asn-35, Arg-39 to Asn-57, Ser-62 to Ile-67, Glu-73 to Arg-81, Lys-89 to Lys-99.		L0805: 19, L0794: 13, L0766: 12, L0740: 11, L0747: 11, L0779: 11, L0803: 8, H0521: 7, L0439: 7, L0731: 7, L0605: 7, S0474: 6, S0422: 6, L0769: 6, L0776: 5, L0665: 5, L0748: 5, L0758: 5, H0618: 4, S0010: 4, L0771: 4, L0789: 4, S3014: 4, H0341: 3, H0615: 3, L0659: 3, S0052: 3, L0438: 3,	

	H0658: 3, H0436: 3, L0752: 3, L0759: 3, S0360: 2, S0222: 2, H0574: 2, H0599: 2, H0196: 2, H0050: 2, H0266: 2, H0708: 2, H0135: 2, H0038: 2, H0616: 2, L0804: 2, H0144: 2, S0374: 2, L0352: 2, H0682: 2, L0743: 2, L0744: 2, L0751: 2, L0749: 2, L0756: 2, S0424: 2, H0624: 1, T0002: 1, H0657: 1, L0785: 1, H0671: 1, S0442: 1, S0408: 1, H0733: 1, S0278: 1, H0431: 1, H0013: 1, S0280: 1, H0581: 1, S0049: 1, H0052: 1, H0251: 1, L0040: 1, H0123: 1, L0471: 1, H0630: 1, H0375: 1, S0003: 1, H0252: 1, L0483: 1, T0006: 1, H0644: 1, H0673: 1, S0036: 1, H0163: 1, H0040: 1, H0551: 1, H0412: 1, H0413: 1, S0038: 1,	
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HODGZ76	HODGZ76R	1494	12 - 179	3669			H0509: 1, H0131: 1, S0344: 1, L0598: 1, L0369: 1, L0763: 1, L0770: 1, L0638: 1, L0667: 1, L0662: 1, L0363: 1, L0768: 1, L0775: 1, L0375: 1, L0806: 1, L0653: 1, L0655: 1, L0809: 1, S0126: 1, H0689: 1, H0684: 1, H0660: 1, H0672: 1, H0710: 1, H0522: 1, S0146: 1, S3012: 1, S0027: 1, S0028: 1, L0745: 1, L0750: 1, L0780: 1, L0753: 1, H0445: 1, L0362: 1, L0361: 1, H0653: 1, H0423: 1 and H0506: 1.		
HODHD23	HODHD23R	1495	3 - 134	3670		Pro-8 to Asn-18, Gln-25 to Glu-30.			
HODHD64	HODHD64R	1496	14 - 205	3671		Tyr-33 to Tyr-38.	H0615: 2		
HODHE36	HODHE36R	1497	190 - 366	3672			H0328: 1 and H0615: 1.		
HODHE54	HODHE54R	1498	3 - 515	3673		Glu-7 to Tyr-12, Glu-44 to Asp-49, Pro-57 to Gly-64, Leu-69 to Arg-74,			

HODHE88	HODHE88R	1499	2 - 166	3674	Thr-76 to Tyr-86. Lys-42 to Asp-48.	H0328: 1 and H0615: 1.		
HODHG56	HODHG56R	1500	82 - 300	3675	Glu-11 to Trp-17, Val-22 to Ser-29, Asp-45 to Lys-52.			
HODHJ56	HODHJ56R	1501	281 - 499	3676	Trp-12 to Ile-18, Gln-40 to Leu-54.			
HODHK82	HODHK82R	1502	71 - 238	3677	Lys-17 to Ala-24.			
HODHK86	HODHK86R	1503	2 - 292	3678	Glu-1 to Gln-7, Met-64 to Gly-69.			
HODIG29	HODIG29R	1504	2 - 115	3679				
HODJL36	HODJL36RA	1505	218 - 472	3680	Lys-9 to Ser-15, Val-42 to Thr-50.	H0261: 1 and H0615: 1.		
HODJZ09	HODJZ09R	1506	31 - 594	3681	Phe-116 to Met-126.	AR104: 14, AR096: 13, AR089: 11, AR060: 10, AR055: 6, AR061: 5 H0615: 3, H0658: 2, H0661: 1 and L0355: 1.		
HODKB19	HODKB19R	1507	504 - 746	3682				
HODKB82	HODKB82R	1508	3 - 344	3683	Gln-40 to Glu-48, Phe-68 to Arg-77, Ile-108 to Glu-113.			
HODKB89	HODKB89R	1509	73 - 216	3684				
HODKB93	HODKB93R	1510	1 - 159	3685	Arg-33 to Thr-38.			
HODKC29	HODKC29R	1511	1 - 486	3686		S0360: 9, L0642: 5, L0752: 5, L0662: 4, L0659: 4, L0666: 4,		

1229

									H0696: 1, S3014: 1, L0439: 1, L0740: 1, L0754: 1, L0756: 1, L0780: 1, L0755: 1, L0758: 1, S0434: 1 and H0667: 1.			
HODKC67	HODKC67R	1512	242 - 373	3687					H0615: 2			
HODKD20	HODKD20R	1513	43 - 213	3688			Arg-11 to Ser-17, Leu-51 to Pro-57.					
HODKD64	HODKD64R	1514	413 - 237	3689			Pro-5 to Asn-10.		H0615: 2 and H0696: 1.			
HODKE85	HODKE85R	1515	314 - 412	3690			Ser-18 to Ile-23.		H0615: 2 and H0328: 1.			
HODKF91	HODKF91R	1516	244 - 417	3691			Lys-12 to Ser-18.					
HODKG09	HODKG09R	1517	28 - 240	3692								
HODKJ77	HODKJ77R	1518	452 - 595	3693					H0615: 2			
HODKK26	HODKK26R	1519	2 - 415	3694			Asp-40 to Gly-45, Leu-59 to Glu-67, Lys-95 to Ile-105, Asp-113 to Gly-118.					
HODKK40	HODKK40R	1520	1 - 642	3695			Ser-15 to Phe-23, Lys-41 to Tyr-46, Pro-48 to Val-59, Thr-90 to Ile-103, Ser-110 to Arg-116, Pro-123 to Lys-137, Lys-157 to Glu-167, Arg-178 to Arg-194.					
HODKK73	HODKK73R	1521	3 - 344	3696			Phe-106 to Pro-114.					

HODKK77	HODKK77R	1522	272 - 433	3697	Ser-8 to Asn-15.	H0615: 2		
HODKL56	HODKL56R	1523	439 - 579	3698				
HODKM25	HODKM25R	1524	36 - 149	3699				
HODKM31	HODKM31R	1525	1 - 210	3700				
HODKN65	HODKN65R	1526	2 - 409	3701				
HOECR39	HOECR39R	1527	20 - 328	3702		H0659: 4, L0770: 3, L0747: 3, H0663: 2, S0360: 2, L0521: 2, L0776: 2, S0126: 2, H0658: 2, S0406: 2, L0755: 2, L0758: 2, L0759: 2, S0242: 2, T0002: 1, H0686: 1, H0341: 1, L0616: 1, S0354: 1, S0408: 1, H0052: 1, H0009: 1, H0083: 1, H0266: 1, H0615: 1, L0483: 1, H0040: 1, H0561: 1, S0422: 1, L0520: 1, L0625: 1, L0662: 1, L0766: 1, L0649: 1, L0519: 1, H0648: 1, S3014: 1, L0748: 1 and L0779: 1.		
HOFAB77	HOFAB77R	1528	1 - 399	3703	Glu-10 to Ala-26, Lys-31 to Tyr-43, Lys-45 to Glu-50, Ile-96 to Lys-102, Asp-123 to Gly-128.			

HOFMF37	HOFMF37R	1529	95 - 277	3704					
HOFMF79	HOFMF79RA	1530	85 - 219	3705					
HOFMJ88	HOFMJ88R	1531	2 - 397	3706	Arg-1 to Phe-16.				
HOFMJ93	HOFMJ93R	1532	1 - 162	3707	His-3 to Ala-19.				
HOFMM84	HOFMM84R	1533	1 - 204	3708					
HOFMN93	HOFMN93R	1534	69 - 323	3709	Glu-8 to Thr-14.	H0415: 2			
HOFMP59	HOFMP59R	1535	1 - 423	3710	Ala-5 to Arg-14.				
HOFMT68	HOFMT68R	1536	50 - 289	3711	Asn-41 to Lys-56.				
HOFMT69	HOFMT69R	1537	1 - 264	3712					
HOFMU92	HOFMU92R	1538	1 - 369	3713					
HOFMV06	HOFMV06R	1539	3 - 296	3714	Asp-1 to Leu-10.				
HOFNF63	HOFNF63R	1540	2 - 481	3715	Arg-1 to Arg-8, Ala-22 to Met-31, Asp-51 to Gln-56.	H0415: 2			
HOFNF76	HOFNF76R	1541	2 - 421	3716	Arg-1 to Ala-6, Ser-68 to Arg-73, Arg-87 to Ala-93.				
HOFNG51	HOFNG51R	1542	25 - 387	3717	Arg-1 to Cys-10, Glu-75 to Arg-94, Arg-99 to Gly-115.				
HOFNK44	HOFNK44R	1543	1 - 186	3718	Lys-52 to Asp-57.				
HOFNY53	HOFNY53R	1544	2 - 232	3719	Arg-1 to Phe-7, Gly-24 to Arg-36.				
HOFOB65	HOFOB65R	1545	1 - 453	3720					
HOFOB79	HOFOB79RP 00A	1546	2 - 682	3721	Val-31 to Val-38, Phe-46 to Ile-59, Arg-120 to Gln-126.				
HOFOE22	HOFOE22R	1547	1 - 345	3722					
HOFOF47	HOFOF47R	1548	3 - 326	3723	Asn-49 to Leu-54.				

HOFOF56	HOFOF56R	1549	1 - 351	3724	Ala-4 to Arg-11.			
HOGAC46	HOGAC46R	1550	35 - 193	3725	Ala-1 to Tyr-6, Ile-17 to Ser-32.			
HOGAQ03	HOGAQ03R	1551	110 - 286	3726	Pro-34 to Lys-39.	H0436: 44, L0748: 14, L0439: 9, L0747: 9, L0769: 7, L0803: 7, L0740: 7, L0755: 7, L0758: 7, L0761: 6, L0662: 6, L0794: 6, L0766: 6, L0663: 6, L0779: 6, H0542: 6, L0717: 5, L0756: 5, H0052: 4, H0135: 4, L0774: 4, L0659: 4, L0665: 4, L0777: 4, L0780: 4, L0731: 4, L0759: 4, H0556: 3, S0420: 3, S0410: 3, S0422: 3, L0763: 3, L0649: 3, L0804: 3, L0805: 3, L0776: 3, L0438: 3, H0547: 3, H0672: 3, H0539: 3, L0754: 3, L0757: 3, L0591: 3, H0422: 3, S0040: 2, S0114: 2, S0116: 2, H0255: 2, H0619: 2, H0486: 2, T0039: 2, H0013: 2, H0635: 2, H0253: 2,		

1234

			H0069: 1, S0280: 1, H0118: 1, H0618: 1, S0010: 1, H0421: 1, H0251: 1, H0204: 1, H0572: 1, H0050: 1, H0012: 1, H0373: 1, H0051: 1, T0010: 1, H0354: 1, H0252: 1, H0328: 1, H0622: 1, H0181: 1, H0617: 1, H0673: 1, H0038: 1, H0634: 1, H0616: 1, H0155: 1, H0264: 1, S0038: 1, H0022: 1, H0625: 1, H0538: 1, S0210: 1, S0002: 1, L0762: 1, L0770: 1, L5565: 1, L0373: 1, L0800: 1, L0642: 1, L0374: 1, L0764: 1, L0364: 1, L0388: 1, L0655: 1, L0657: 1, L0526: 1, L0518: 1, L0382: 1, L0789: 1, L0792: 1, L0664: 1, H0723: 1, H0726: 1, S0126: 1, H0689: 1, H0690: 1, H0682: 1, H0435: 1, H0670: 1, H0648: 1, S0330: 1,
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HOGBE60	HQGBE60R	1552	265 - 591	3727	Asp-15 to His-22.	S0378: 1, S0152: 1, S0406: 1, H0555: 1, H0678: 1, L0744: 1, L0752: 1, L0753: 1, H0445: 1, H0707: 1, L0593: 1, L0595: 1, S0011: 1, H0668: 1, S0026: 1, H0665: 1, S0196: 1, H0543: 1 and H0677: 1.		
						L0777: 7, L0747: 6, L0779: 6, L0748: 5, L0776: 4, L0749: 4, L0770: 3, L0766: 3, L0759: 3, S0442: 2, L0769: 2, L0761: 2, L0771: 2, L0774: 2, L0527: 2, L0783: 2, L0665: 2, L0757: 2, L0758: 2, S0412: 2, H0402: 1, S0444: 1, H0438: 1, H0587: 1, H0333: 1, L0471: 1, H0674: 1, H0646: 1, L0763: 1, L0643: 1, L0764: 1, L0662: 1, L0363: 1, L0767: 1, L0387: 1, L0803: 1, L0526: 1, L0647: 1, L0663: 1, H0690: 1,		

							H0435: 1, S0330: 1, S0406: 1, L0740: 1, L0751: 1, L0780: 1, S0436: 1 and L0596: 1.			
HOGCF48	HOGCF48R	1553	230 - 436	3728						
HOGCG83	HOGCG83R	1554	50 - 409	3729						
HOGCH23	HOGCH23R	1555	58 - 207	3730						
HOGCI28	HOGCI28R	1556	3 - 332	3731			H0435: 4, H0726: 3, L0748: 3, H0355: 2, H0059: 2, L0525: 2, H0713: 1, H0717: 1, H0586: 1, H0427: 1, H0575: 1, H0744: 1, H0327: 1, H0271: 1, H0622: 1, H0087: 1, S0438: 1, L0792: 1, H0593: 1, H0555: 1, L0698: 1 and H0506: 1.			
HOGCI10	HOGCI10R	1557	10 - 480	3732			H0052: 1, H0135: 1, H0429: 1, H0519: 1 and H0435: 1.			
HOGCI42	HOGCI42R	1558	3 - 254	3733		Val-6 to Ala-11.				
HOGCI55	HOGCI55R	1559	7 - 507	3734		Thr-56 to Glu-61, Lys-87 to Lys-95, Thr-110 to Arg-118.				
HOGCP07	HOGCP07R	1560	3 - 143	3735						
HOGCP86	HOGCP86RA	1561	1 - 486	3736		Arg-11 to Arg-16, Pro-46 to Thr-52, His-58 to Pro-65,				

HOGCT44	HOGCT44R	1562	1 - 183	3737	Ala-71 to Trp-77, Pro-134 to Gly-146.			
HOGCV85	HOGCV85R	1563	3 - 443	3738	His-14 to Phe-20, Ser-37 to Gly-60.			
HOGCV93	HOGCV93R	1564	22 - 513	3739	Gly-20 to Leu-28, Val-33 to Gly-41, Thr-43 to Gly-55, Val-58 to Arg-66.			
HOGCY12	HOGCY12R	1565	2 - 235	3740	Lys-7 to Thr-13, Asp-24 to Thr-30, Gly-39 to Glu-52, Leu-70 to Arg-76, Phe-87 to Tyr-92.			
HOGCY58	HOGCY58R	1566	3 - 338	3741	Lys-2 to Thr-8, Asp-19 to Thr-25, Gly-34 to Glu-47, Leu-65 to Arg-71.			
HOGCY74	HOGCY74R	1567	3 - 260	3742	Asn-5 to Gln-12, Gln-19 to Glu-25, Arg-78 to Glu-99, Thr-106 to Ala-111.			
HOGDD29	HOGDD29R	1568	3 - 152	3743	Arg-1 to Asn-8, Phe-18 to His-24, Asp-57 to Lys-62, Lys-76 to Asp-81.			
HOGDE77	HOGDE77R	1569	95 - 184	3744				
HOGDG03	HOGDG03R	1570	2 - 397	3745	Thr-9 to His-19, Leu-35 to Ala-46.			

HOGDG76	HOGDG76R	1571	3 - 497	3746	Pro-55 to Pro-60, Gly-69 to Arg-74. Arg-35 to Gly-40, His-51 to Lys-56, Phe-94 to Ser-99, Thr-102 to Gly-107, Pro-113 to Ser-120. L0665: 3, H0682: 2, H0435: 2, L0751: 2, H0663: 1, L0021: 1, H0647: 1, L0806: 1, L0664: 1, H0683: 1, H0670: 1 and H0660: 1.		
HOGDI44	HOGDI44R	1572	1 - 342	3747	Gln-58 to Gln-64, Cys-73 to Arg-88.		
HOGDI49	HOGDI49R	1573	124 - 357	3748			
HOGDO25	HOGDO25R	1574	2 - 322	3749	Pro-38 to Met-44.		
HOGDO58	HOGDO58R	1575	74 - 244	3750	Pro-6 to Tyr-17, Val-39 to Gln-45.		
HOGDP10	HOGDP10R	1576	3 - 299	3751	Glu-3 to Glu-14.		
HOGDQ54	HOGDQ54R	1577	3 - 335	3752			
HOGDQ95	HOGDQ95R	1578	22 - 492	3753	Arg-9 to Val-17.		
HOGDR70	HOGDR70R	1579	48 - 470	3754	Arg-9 to Arg-18, Arg-27 to Arg-35, Arg-47 to Asp-55, Asp-78 to Lys-83.		
HOGDV93	HOGDV93R	1580	1 - 417	3755	Gly-1 to Ala-6, Glu-54 to Ile-62, Asp-89 to Thr-98.		
HOGEA27	HOGEA27R	1581	2 - 241	3756			
HOGED85	HOGED85R	1582	3 - 326	3757	Tyr-94 to Phe-99.		
HOG EK25	HOG EK25R	1583	2 - 325	3758			
HOGEN30	HOGEN30R	1584	2 - 325	3759	Leu-3 to Arg-19.		
HOGEN55	HOGEN55R	1585	2 - 226	3760			

HOGEP46	HOGEP46R	1586	3 - 212	3761	Gly-17 to Asn-27, Ser-51 to His-61.	L0521: 1, L0662: 1 and H0435: 1.		
HOGEP69	HOGEP69R	1587	2 - 223	3762				
HOGEP60	HOGEP60R	1588	2 - 376	3763		H0295: 8, H0617: 7, L0665: 7, H0435: 7, H0592: 6, H0494: 6, L0439: 6, L0751: 6, S0360: 5, S0046: 4, H0587: 4, H0012: 4, H0264: 4, L0662: 4, S0406: 4, H0586: 3, H0620: 3, H0031: 3, H0551: 3, S0440: 3, S0002: 3, L0763: 3, L0648: 3, L0649: 3, L0774: 3, L0659: 3, H0520: 3, H0547: 3, H0689: 3, H0660: 3, S0328: 3, S0330: 3, L0748: 3, L0754: 3, L0750: 3, H0294: 2, H0650: 2, H0341: 2, S0356: 2, S0132: 2, H0370: 2, H0333: 2, H0643: 2, L0623: 2, H0706: 2, H0081: 2, H0039: 2, H0553: 2, H0181: 2, H0068: 2, H0135: 2, H0040: 2, H0646: 2, L0640: 2,		

1241

							L0375: 1, L0651: 1, L0378: 1, L0653: 1, L0655: 1, L0558: 1, L0635: 1, L0518: 1, L0383: 1, L0792: 1, L0663: 1, S0006: 1, H0696: 1, S0044: 1, S3014: 1, L0743: 1, L0752: 1, L0755: 1, L0731: 1, L0759: 1, H0216: 1, H0543: 1, S0424: 1 and H0506: 1.			
H0GEU84	H0GEU84R	1589	3 - 368	3764	Pro-8 to Asn-34, Ala-39 to Arg-53.		AR096: 1, AR104: 1, AR055: 0, AR061: 0, AR060: 0, AR089: 0 S0250: 1 and H0435: 1.			
H0GEW58	H0GEW58R	1590	1 - 417	3765						
H0GEW72	H0GEW72R	1591	256 - 333	3766						
H0GEZ03	H0GEZ03R	1592	52 - 144	3767						
H0GEZ27	H0GEZ27R	1593	2 - 307	3768						
HOHDI15	HOHDI15R	1594	3 - 170	3769						
HOHQB44	HOHQB44R	1595	128 - 313	3770	Ser-1 to Gln-6, Ser-51 to Thr-56.					
HOHQC27	HOHQC27R	1596	9 - 194	3771	Gly-4 to Lys-10.					
HOHJ69	HOHJ69R	1597	9 - 152	3772	Gly-4 to Lys-10.		H0637: 2, H0413: 1 and H0648: 1.			
HOHKB47	HOHKB47R	1598	126 - 260	3773						
HOHKL15	HOHKL15R	1599	60 - 383	3774						
HOHKL19	HOHKL19R	1600	14 - 205	3775	Pro-17 to Ser-24.					

HOOHL68	HOOHL68R	1601	271 - 570	3776		L0748: 11, L0666: 5, L0750: 5, L0805: 4, L0663: 4, L0664: 4, L0439: 4, L0662: 3, L0758: 3, L0005: 2, H0587: 2, H0318: 2, H0052: 2, H0024: 2, H0553: 2, L0770: 2, L0648: 2, L0766: 2, L0497: 2, L0665: 2, H0519: 2, H0648: 2, L0740: 2, L0731: 2, L0593: 2, H0677: 2, H0170: 1, H0583: 1, H0638: 1, H0586: 1, H0331: 1, H0486: 1, H0013: 1, H0156: 1, H0036: 1, L0040: 1, H0620: 1, S6028: 1, H0328: 1, H0615: 1, T0023: 1, S0036: 1, H0591: 1, H0040: 1, T0067: 1, S0472: 1, H0529: 1, L0761: 1, L0764: 1, L0771: 1, L0649: 1, L0803: 1, L0804: 1, L0775: 1, L0806: 1, L0655: 1, L0657: 1, L0659: 1, L0790: 1, H0144: 1,		
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							L0438: 1, H0672: 1, H0522: 1, S0392: 1, L0747: 1, L0749: 1, L0756: 1, L0752: 1, H0445: 1, L0591: 1 and H0422: 1.			
HOHP84	HOHP84R	1602	1 - 186	3777						
HOHQ09	HOHQ09R	1603	161 - 313	3778	Lys-1 to Lys-13.					
HOHQ83	HOHQ83R	1604	67 - 399	3779	Pro-10 to Ser-37, Gln-41 to Thr-57, Arg-62 to Thr-68, Pro-80 to Lys-85, Gly-99 to Gly-106.					
HOHR81	HOHR81R	1605	336 - 500	3780						
HOHS67	HOHS67R	1606	69 - 281	3781						
HOHS82	HOHS82R	1607	53 - 145	3782						
HOHT13	HOHT13R	1608	3 - 194	3783	Glu-1 to Glu-11.					
HOHX50	HOHX50R	1609	17 - 163	3784						
HOIA46	HOIA46R	1610	3 - 239	3785			L0770: 12, H0657: 10, H0659: 9, L0776: 8, H0648: 8, L0755: 8, L0774: 7, S0410: 6, H0494: 6, L0769: 6, L0750: 6, S0408: 5, S0440: 5, L0775: 5, S0376: 4, S0360: 4, L0748: 4, L0777: 4, L0752: 4, L0759: 4, H0341: 3, S0358: 3,			

H0616: 3, L0766: 3, L0740: 3, L0747: 3, L0731: 3, L0758: 3, S0026: 3, H0170: 2, H0556: 2, H0685: 2, H0656: 2, S0420: 2, S0444: 2, T0109: 2, H0156: 2, H0545: 2, L0471: 2, H0031: 2, H0040: 2, H0560: 2, L0065: 2, S0438: 2, L0763: 2, L0772: 2, L0764: 2, L0518: 2, L0783: 2, H0144: 2, S0374: 2, H0520: 2, H0658: 2, H0670: 2, L0753: 2, H0445: 2, S0434: 2, H0665: 2, S0194: 2, S0134: 1, S0116: 1, H0663: 1, L0481: 1, H0638: 1, H0125: 1, S0442: 1, H0351: 1, H0369: 1, H0550: 1, H0431: 1, H0331: 1, H0069: 1, S0346: 1, T0048: 1, S0182: 1, S0049: 1, H0563: 1, H0081: 1, H0620: 1, H0014: 1, H0373: 1, H0083: 1,
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HO0IA57	HO0IA57R	1611	251 - 361	3786				H0375: 1, H0428: 1, H0708: 1, H0634: 1, H0412: 1, H0413: 1, L0475: 1, H0386: 1, L0598: 1, H0529: 1, L0520: 1, L0762: 1, L0371: 1, L0638: 1, L0373: 1, L0646: 1, L0773: 1, L0521: 1, L0662: 1, L0805: 1, L0655: 1, L0517: 1, L0540: 1, L0542: 1, L0526: 1, L0809: 1, L0545: 1, L0791: 1, L0663: 1, L0665: 1, H0691: 1, H0547: 1, H0690: 1, H0435: 1, H0660: 1, H0651: 1, S0380: 1, S0406: 1, L0749: 1, L0780: 1, H0668: 1, H0653: 1, S0242: 1, S0276: 1, H0542: 1, H0422: 1 and H0506: 1.		
HO0IA57	HO0IA57R	1611	251 - 361	3786				L0803: 14, L0439: 9, L0752: 9, L0666: 7, L0659: 5, S0328: 5, L0756: 5, L0731: 5, L0794: 4, S0412: 4, S0360: 3, H0634: 3,		

	S0002: 3, L0805: 3, L0809: 3, L0438: 3, H0520: 3, L0748: 3, L0740: 3, L0758: 3, H0656: 2, S0418: 2, S0358: 2, H0013: 2, H0083: 2, S0022: 2, S0386: 2, L0776: 2, H0648: 2, L0602: 2, H0521: 2, S0028: 2, L0742: 2, L0596: 2, H0423: 2, H0170: 1, H0171: 1, H0657: 1, H0341: 1, H0669: 1, H0662: 1, H0638: 1, S0420: 1, S0376: 1, H0580: 1, S0007: 1, S0132: 1, L0717: 1, H0369: 1, H0600: 1, H0587: 1, H0497: 1, H0427: 1, L0021: 1, H0575: 1, S0010: 1, H0581: 1, H0421: 1, H0263: 1, T0115: 1, H0545: 1, L0471: 1, S0051: 1, H0510: 1, H0375: 1, S0003: 1, H0328: 1, H0428: 1, H0039: 1, H0622: 1, L0483: 1, H0031: 1,	
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HO0IB34	HO0IB34R	1612	46 - 153	3787			HO553: 1, H0644: 1, HO628: 1, H0673: 1, S0364: 1, H0316: 1, HO598: 1, H0090: 1, HO087: 1, H0551: 1, T0067: 1, H0488: 1, HO623: 1, H0494: 1, L0475: 1, H0560: 1, HO509: 1, S0150: 1, HO641: 1, S0422: 1, S0426: 1, H0529: 1, L0770: 1, L0761: 1, L0627: 1, L0646: 1, L0773: 1, L0521: 1, L0768: 1, L0766: 1, L0527: 1, L0647: 1, L0789: 1, L0663: 1, S0428: 1, S0374: 1, HO519: 1, H0435: 1, HO659: 1, H0672: 1, HO518: 1, H0522: 1, HO134: 1, L0356: 1, L0745: 1, L0747: 1, L0779: 1, L0759: 1, L0589: 1, L0592: 1, L0608: 1, L0594: 1, S0026: 1, H0136: 1 and S0242: 1.
HO0IB54	HO0IB54R	1613	2 - 199	3788			

HOOIF71	HOOIF71R	1614	3 - 389	3789				
HOOIG71	HOOIG71R	1615	2 - 301	3790	Ile-1 to Lys-7, Gly-13 to Lys-19, Pro-59 to Arg-76.			
HOOIK04	HOOIK04R	1616	2 - 172	3791	Val-50 to Arg-56.			
HOOIL33	HOOIL33R	1617	97 - 264	3792	Leu-41 to Ser-52.			
HOOIO53	HOOIO53R	1618	3 - 164	3793				
HOOIR94	HOOIR94R	1619	20 - 109	3794				
HOOJA64	HOOJA64R	1620	272 - 400	3795				
HOOJB36	HOOJB36R	1621	118 - 315	3796				
HOOJE93	HOOJE93R	1622	125 - 268	3797				
HOOJK91	HOOJK91R	1623	80 - 211	3798				
HOOJN84	HOOJN84R	1624	1 - 189	3799	Asp-48 to Thr-54, Glu-57 to Ser-63.	L0758: 14, L0747: 10, L0752: 10, L0731: 10, L0663: 9, H0547: 9, L0740: 9, L0666: 8, H0046: 7, S0126: 7, L0748: 7, H0539: 6, L0439: 6, L0759: 6, L0595: 6, H0543: 6, H0050: 5, H0031: 5, H0648: 5, S0328: 5, H0624: 4, H0657: 4, H0656: 4, S0007: 4, H0549: 4, H0550: 4, H0591: 4, H0616: 4, H0551: 4, L0769: 4, L0662: 4, L0659: 4, H0144: 4, L0438: 4,		

1250

	H0580: 1, S0045: 1, H0440: 1, H0431: 1, T0104: 1, H0600: 1, H0632: 1, H0559: 1, H0485: 1, H0069: 1, S0280: 1, L0021: 1, H0042: 1, H0706: 1, H0505: 1, H0581: 1, H0421: 1, H0052: 1, L0471: 1, S0051: 1, H0266: 1, H0267: 1, S0316: 1, H0028: 1, H0252: 1, H0615: 1, H0644: 1, H0169: 1, H0598: 1, H0163: 1, H0038: 1, H0372: 1, H0412: 1, H0413: 1, H0623: 1, T0004: 1, S0372: 1, S0448: 1, S0440: 1, S0150: 1, S0344: 1, S0422: 1, L0598: 1, L0369: 1, L0520: 1, L0762: 1, L0761: 1, L0648: 1, L0521: 1, L0363: 1, L0649: 1, L0650: 1, L0523: 1, L0806: 1, L0653: 1, L0606: 1, L0661: 1, L0527: 1, L0809: 1, H0658: 1,	
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							H0672: 1, S0330: 1, S0152: 1, H0696: 1, S0406: 1, H0555: 1, H0478: 1, S0432: 1, L0786: 1, S0260: 1, H0445: 1, L0366: 1, S0026: 1, H0667: 1, H0423: 1, S0424: 1, S0446: 1 and H0008: 1.			
HOOJP58	HOOJP58R	1625	93 - 248	3800						
HOOJR60	HOOJR60R	1626	160 - 306	3801			H0648: 2, H0436: 2, L0748: 2, S0360: 1, L0766: 1, L0803: 1 and L0779: 1.			
HOOJR72	HOOJR72R	1627	77 - 265	3802						
HOOJS84	HOOJS84R	1628	78 - 290	3803						
HOOJT32	HOOJT32R	1629	1 - 237	3804						
HOOJT65	HOOJT65R	1630	2 - 340	3805	Ala-2 to Asp-10.					
HOOJV78	HOOJV78R	1631	318 - 560	3806			H0486: 1 and H0648: 1.			
HOOJX42	HOOJX42R	1632	317 - 463	3807						
HOOJX80	HOOJX80R	1633	106 - 267	3808	Arg-11 to Pro-22, Asn-42 to Lys-48.		L0731: 2, H0483: 1, T0007: 1, T0039: 1, H0562: 1, L0769: 1, L0766: 1, H0670: 1, H0648: 1, L0756: 1, L0755: 1, L0758: 1, L0759: 1 and L0485: 1.			
HOOJY17	HOOJY17R	1634	147 - 479	3809	Pro-8 to Phe-18.					

HOOJY41	HOOJY41R	1635	51 - 347	3810					
HOOJY44	HOOJY44R	1636	2 - 184	3811	Gln-1 to Cys-7, Asn-14 to Lys-22, Arg-29 to Leu-34, Glu-46 to Leu-54.				
HOOJY80	HOOJY80R	1637	1 - 462	3812	Ala-1 to Pro-6, Ala-22 to Glu-27, Glu-36 to Ser-45, Glu-62 to Gly-67, Gln-74 to Phe-83, Thr-90 to Ser-96, His-105 to Pro-116.				
HOOJY92	HOOJY92R	1638	3 - 437	3813		H0547: 16, H0090: 11, H0543: 10, H0542: 9, H0341: 8, L0471: 8, H0551: 8, S0358: 7, H0561: 7, S0126: 7, H0521: 7, H0657: 5, H0013: 5, S0440: 5, H0529: 5, H0144: 5, H0519: 5, H0265: 4, S0040: 4, H0264: 4, H0560: 4, H0520: 4, S0027: 4, L0731: 4, L0591: 4, L0592: 4, L0595: 4, H0423: 4, S0424: 4, H0170: 3, H0686: 3, H0638: 3, S0360: 3, S0410: 3, H0580: 3, H0486: 3,			

	H0600: 1, H0586: 1, T0039: 1, T0040: 1, H0244: 1, H0069: 1, H0575: 1, H0004: 1, S0665: 1, H0581: 1, H0421: 1, S0049: 1, H0052: 1, T0115: 1, H0327: 1, H0572: 1, H0050: 1, H0620: 1, H0355: 1, S6028: 1, S0316: 1, H0290: 1, H0286: 1, H0615: 1, H0039: 1, H0622: 1, H0031: 1, H0316: 1, S0036: 1, H0616: 1, H0412: 1, H0056: 1, S0038: 1, S0112: 1, H0128: 1, H0429: 1, H0334: 1, H0625: 1, H0386: 1, H0509: 1, H0641: 1, H0633: 1, S0210: 1, S0426: 1, L0761: 1, L0800: 1, L0764: 1, L0773: 1, L0775: 1, L0663: 1, S0006: 1, S0148: 1, L0438: 1, H0593: 1, H0689: 1, H0670: 1, H0666: 1, H0648: 1, S0328: 1, S0330: 1,	
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							S0378: 1, H0696: 1, H0134: 1, H0555: 1, S0037: 1, S0206: 1, L0749: 1, S0031: 1, S0260: 1, H0445: 1, S0434: 1, L0599: 1, L0594: 1, H0422: 1 and S0456: 1.			
HOOKK83	HOOKK83R	1639	107 - 367	3814						
HOOKN43	HOOKN43R	1640	118 - 453	3815	Asp-1 to Lys-22.					
HOOKN71	HOOKN71R	1641	210 - 344	3816			H0657: 3, L0717: 2, H0421: 2, L0766: 2, L0666: 2, L0756: 2, L0759: 2, H0717: 1, H0587: 1, H0156: 1, L0021: 1, H0581: 1, H0014: 1, H0252: 1, S0422: 1, L0662: 1, L0794: 1, L0655: 1, L0809: 1, L0543: 1, L0791: 1, L0665: 1, H0658: 1, H0670: 1, H0648: 1, H0672: 1, H0696: 1, L0780: 1, S0434: 1 and H0506: 1.			
HOPJA09	HOPJA09R	1642	14 - 196	3817	Pro-20 to Gly-38.					
HOPJF95	HOPJF95R	1643	107 - 571	3818						
HOPJG60	HOPJG60R	1644	207 - 461	3819	Gly-69 to Glu-78.		L0775: 5, L0776: 5, L0747: 5, L0604: 5, L0769: 4, L0805: 4,			

HOPJG66	HOPJG66R	1645	2 - 136	3820	Pro-4 to Ser-29, Pro-31 to Ser-38.	L0777: 3, L0759: 3, L0774: 2, L0809: 2, L0758: 2, H0341: 1, H0484: 1, S0358: 1, S0444: 1, S0360: 1, S6026: 1, S0278: 1, H0156: 1, H0038: 1, H0616: 1, H0102: 1, L0770: 1, L0766: 1, L0804: 1, L0657: 1, L0789: 1, H0684: 1, H0696: 1, S0044: 1, L0756: 1 and L0780: 1.		
HOPJG66	HOPJG66R	1645	2 - 136	3820	Pro-4 to Ser-29, Pro-31 to Ser-38.	H0547: 41, L0751: 26, H0520: 18, S0344: 12, L0731: 11, T0006: 9, L0794: 9, L0753: 8, L0593: 8, S0278: 6, L0809: 6, H0135: 5, S0142: 5, L0800: 5, L0665: 5, L0743: 5, L0747: 5, H0024: 4, S0328: 4, L0759: 4, H0661: 3, H0594: 3, H0617: 3, L0657: 3, H0658: 3, H0666: 3, L0750: 3, L0752: 3, H0352: 3, H0664: 2, H0662: 2, H0041: 2, H0123: 2, H0081: 2,		

	H0050: 2, H0099: 2, H0494: 2, S0002: 2, L0769: 2, L0806: 2, L0517: 2, L0382: 2, H0684: 2, H0660: 2, H0539: 2, S0152: 2, L0748: 2, L0587: 2, L0595: 2, H0294: 1, H0656: 1, H0484: 1, H0669: 1, H0208: 1, H0619: 1, H0586: 1, H0333: 1, H0427: 1, H0052: 1, H0251: 1, H0546: 1, H0545: 1, H0012: 1, H0688: 1, H0181: 1, H0606: 1, H0334: 1, H0646: 1, S0144: 1, S0426: 1, L0762: 1, L0640: 1, L0763: 1, L0637: 1, L0662: 1, L0386: 1, L0803: 1, L0804: 1, L0774: 1, L0378: 1, L0805: 1, L0629: 1, L0558: 1, L0659: 1, L0783: 1, L0791: 1, H0689: 1, H0648: 1, S0330: 1, S0332: 1, H0436: 1, H0540: 1, S0028: 1, L0744: 1,					
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							L0755: 1, L0757: 1, L0758: 1 and S0276: 1.		
HOPJG79	HOPJG79R	1646	3 - 542	3821		Ala-83 to Arg-91, Trp-99 to Tyr-105, Tyr-123 to Glu-128.			
HOPJG89	HOPJG89R	1647	166 - 597	3822		Gly-2 to Ala-13.			
HOPJH17	HOPJH17R	1648	321 - 464	3823					
HOPJH38	HOPJH38R	1649	148 - 285	3824			S0412: 22, L0662: 19, L0777: 14, S0010: 11, S0222: 9, S6028: 9, L0750: 9, T0010: 8, L0659: 8, L0747: 8, L0756: 8, L0663: 7, L0439: 7, H0051: 6, L0518: 6, L0754: 6, L0752: 6, S0280: 5, H0575: 5, S0358: 4, S0346: 4, L0753: 4, H0170: 3, H0662: 3, S0360: 3, H0427: 3, L0471: 3, H0373: 3, L0638: 3, L0637: 3, L0764: 3, L0774: 3, L0809: 3, L0666: 3, S0310: 3, H0672: 3, H0696: 3, L0731: 3, H0506: 3, H0713: 2, S0408: 2, H0411: 2, H0455: 2, H0574: 2, S0414: 2, H0486: 2,		

			H0036: 2, S0049: 2, H0052: 2, H0327: 2, H0687: 2, H0428: 2, H0553: 2, H0644: 2, H0038: 2, L0520: 2, L0762: 2, L0770: 2, L0653: 2, L0517: 2, S0044: 2, L0442: 1, H0583: 1, L0443: 1, S0110: 1, S0282: 1, S0400: 1, H0661: 1, S0348: 1, S0356: 1, S0444: 1, H0329: 1, S0007: 1, H0619: 1, S6026: 1, S0300: 1, L0717: 1, S6022: 1, H0550: 1, H0592: 1, H0587: 1, H0599: 1, H0042: 1, H0590: 1, H0318: 1, H0309: 1, H0545: 1, H0563: 1, H0564: 1, H0123: 1, H0019: 1, S0050: 1, L0163: 1, S0388: 1, H0356: 1, H0328: 1, H0688: 1, H0039: 1, T0023: 1, H0031: 1, H0111: 1, H0169: 1, S0364: 1, L0455: 1, H0135: 1, H0163: 1,		
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							T0067: 1, T0069: 1, T0004: 1, H0100: 1, S0112: 1, L0370: 1, L0598: 1, L0769: 1, L0630: 1, L0800: 1, L0648: 1, L0363: 1, L0768: 1, L0649: 1, L0803: 1, L0775: 1, L0375: 1, L0651: 1, L0784: 1, L0523: 1, L0805: 1, L0776: 1, L0527: 1, L0657: 1, L0635: 1, L0783: 1, L0789: 1, L0532: 1, L0664: 1, H0691: 1, T0068: 1, S0148: 1, H0693: 1, H0520: 1, H0593: 1, H0689: 1, H0684: 1, S0330: 1, S0380: 1, S0174: 1, H0555: 1, L0612: 1, L0743: 1, L0748: 1, L0751: 1, L0749: 1, L0779: 1, L0759: 1, L0689: 1, S0434: 1, L0604: 1, L0366: 1, S0106: 1 and S0021: 1.		
HOPJH65	HOPJH65R	1650	6 - 497	3825	Ala-1 to Gly-11, Asn-20 to Pro-25.				
HOPJM63	HOPJM63R	1651	101 - 250	3826	Pro-20 to Glu-25,	S0010: 1, H0327: 1,			

					Lys-31 to Gly-36.					H0039: 1, H0622: 1, S0464: 1, L0803: 1, H0684: 1 and H0670: 1.			
HOPJU10	HOPJU10R	1652	78 - 269	3827	Phe-15 to Ser-22.					L0665: 7, L0747: 7, L0662: 6, L0766: 6, L0655: 5, L0659: 5, S0126: 5, L0717: 4, H0370: 4, L0763: 4, L0770: 4, L0646: 4, H0521: 4, L0748: 4, S0360: 3, H0009: 3, S0142: 3, S0344: 3, L0771: 3, L0774: 3, L0775: 3, L0663: 3, L0664: 3, L0740: 3, L0751: 3, L0750: 3, L0758: 3, L0601: 3, H0265: 2, H0657: 2, S0418: 2, S0420: 2, S0045: 2, T0039: 2, H0024: 2, T0010: 2, H0413: 2, S0144: 2, S0210: 2, L0667: 2, L0372: 2, L0642: 2, L0765: 2, L0653: 2, L0383: 2, L0666: 2, L0744: 2, L0439: 2, L0754: 2, L0756: 2, L0731: 2, L0599: 2, H0543: 2, L0615: 1,			

	H0556: 1, H0295: 1, S0114: 1, H0656: 1, L0778: 1, S0282: 1, H0255: 1, H0661: 1, H0402: 1, S0354: 1, S0358: 1, S0376: 1, H0351: 1, S0222: 1, H0600: 1, H0586: 1, H0333: 1, H0250: 1, T0082: 1, H0318: 1, H0421: 1, H0052: 1, L0738: 1, H0327: 1, H0051: 1, H0083: 1, S0003: 1, S0022: 1, S0214: 1, H0092: 1, T0023: 1, L0483: 1, T0006: 1, H0030: 1, H0628: 1, H0181: 1, H0169: 1, H0090: 1, H0058: 1, L0351: 1, T0041: 1, H0494: 1, S0015: 1, L0065: 1, S0426: 1, L0640: 1, L0769: 1, L0772: 1, L0641: 1, L0374: 1, L0764: 1, L0773: 1, L0648: 1, L0626: 1, L0768: 1, L0649: 1, L0784: 1, L0378: 1, L0806: 1, L0776: 1,	
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HOPJX48	HOPJX48R	1653	1 - 207	3828	Arg-5 to His-22, Ser-59 to Ala-69.	L0807: 1, L0657: 1, L0656: 1, L0783: 1, S0052: 1, S0428: 1, L0438: 1, H0547: 1, H0690: 1, H0682: 1, H0684: 1, H0670: 1, H0660: 1, H0672: 1, H0522: 1, H0187: 1, H0576: 1, S0027: 1, S0206: 1, L0743: 1, L0757: 1, L0605: 1, L0590: 1, L0591: 1, L0581: 1, L0595: 1, S0026: 1, H0665: 1, H0667: 1, H0542: 1, H0423: 1 and H0352: 1.		
						H0445: 13, H0255: 11, L0666: 7, H0575: 5, H0059: 4, S0344: 4, L0655: 4, H0521: 4, H0522: 4, L0748: 4, L0751: 4, H0556: 3, S0278: 3, H0013: 3, H0181: 3, H0617: 3, S0142: 3, H0658: 3, H0660: 3, L0439: 3, H0423: 3, S0116: 2, H0341: 2, S0360: 2, H0580: 2, H0581: 2, H0014: 2, H0087: 2,		

HOPJY50	HOPJY50R	1654	273 - 395	3829				S0031: 1 and H0543: 1.			
HOPJZ59	HOPJZ59R	1655	2 - 163	3830							
HOPKA06	HOPKA06R	1656	2 - 676	3831			Pro-35 to Arg-48.				
							Arg-19 to Tyr-24, Asp-75 to Glu-87, Asn-102 to Cys-109, Ser-113 to Lys-118, Tyr-154 to Ser-169.	AR096: 4, AR089: 3, AR061: 1, AR055: 1, AR060: 1, AR104: 1 H0684: 2 and L0731: 1.			
HOPKC65	HOPKC65R	1657	26 - 232	3832			Leu-39 to Ser-51.				
HOPKD31	HOPKD31R	1658	3 - 191	3833			Ser-50 to Pro-57.				
HOPKG16	HOPKG16R	1659	1 - 456	3834			Asn-80 to Gly-86.				
HOPKG47	HOPKG47R	1660	1 - 579	3835			Pro-6 to Thr-34, Asp-57 to Gly-62, Gly-77 to Glu-83, Lys-108 to Asp-116, Met-145 to Arg-159.				
HOPKG83	HOPKG83R	1661	1 - 663	3836			Ser-72 to Ala-78, Asp-94 to Gly-100, Thr-104 to Asp-111, Ser-117 to Arg-133, Glu-138 to Lys-144, Lys-158 to Asp-165.				
HOPKK38	HOPKK38R	1662	3 - 455	3837			Ser-33 to Pro-42, Lys-53 to Cys-61.	H0494: 6, H0556: 5, H0265: 3, H0656: 3, H0618: 3, H0295: 2, H0255: 2, H0392: 2, H0575: 2, H0253: 2, H0052: 2, H0024: 2, H0617: 2, H0087: 2.			

L0565: 2, H0547: 2, H0521: 2, L0744: 2, L0439: 2, H0136: 2, H0543: 2, H0224: 1, H0225: 1, H0585: 1, S0114: 1, H0341: 1, H0484: 1, H0483: 1, H0671: 1, S0418: 1, S0354: 1, S0408: 1, S0007: 1, S0045: 1, H0261: 1, H0550: 1, H0586: 1, H0587: 1, H0497: 1, H0643: 1, H0257: 1, H0559: 1, H0485: 1, H0486: 1, S0346: 1, T0048: 1, T0071: 1, H0309: 1, H0041: 1, H0081: 1, H0050: 1, H0012: 1, H0620: 1, H0051: 1, S0388: 1, H0071: 1, H0083: 1, H0354: 1, H0594: 1, H0266: 1, H0179: 1, H0271: 1, H0292: 1, H0428: 1, H0424: 1, H0181: 1, H0135: 1, H0090: 1, H0063: 1, H0488: 1, H0433: 1, H0100: 1, T0041: 1, S0440: 1,
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							S0142: 1, H0538: 1, L0769: 1, L0764: 1, L0803: 1, L0809: 1, H0593: 1, H0683: 1, H0684: 1, H0435: 1, S0044: 1, L0747: 1, S0031: 1, H0445: 1, L0593: 1 and L0601: 1.			
HOPKN14	HOPKN14R	1663	2 - 460	3838	Gly-63 to Ala-69, Gly-104 to Leu-110, Gly-130 to Gly-136.					
HOPKN67	HOPKN67R	1664	22 - 483	3839						
HOPKO04	HOPKO04RA	1665	170 - 319	3840			L0803: 6, L0731: 4, S0440: 3, L0662: 3, L0809: 3, L0665: 3, S0276: 3, H0486: 2, H0318: 2, L0794: 2, L0805: 2, L0776: 2, L0663: 2, H0684: 2, L0740: 2, L0759: 2, L0592: 2, H0624: 1, L0448: 1, H0341: 1, S0282: 1, H0663: 1, S0360: 1, H0580: 1, L0468: 1, H0587: 1, H0427: 1, H0575: 1, S0010: 1, L0471: 1, H0644: 1, H0383: 1, H0169: 1, L0456: 1, H0090: 1, H0264: 1,			

								H0412: 1, H0561: 1, S0150: 1, S0002: 1, H0529: 1, L0638: 1, L5565: 1, L0372: 1, L0649: 1, L0388: 1, L0659: 1, L0783: 1, L0789: 1, L0791: 1, H0519: 1, S0380: 1, H0522: 1, H0436: 1, L0747: 1, L0752: 1, L0757: 1, L0599: 1, H0542: 1, H0543: 1 and H0422: 1.			
HOPKO61	HOPKO61R	1666	1 - 405	3841							
HOPKP45	HOPKP45R	1667	282 - 536	3842							
HOPKQ20	HOPKQ20R	1668	19 - 402	3843	Ser-19 to Arg-29, Asp-37 to Val-43, Ala-75 to Leu-80, Thr-96 to Arg-111.						
HOPKQ82	HOPKQ82R	1669	1 - 519	3844							
HOPKR56	HOPKR56R	1670	3 - 173	3845				L0439: 15, L0666: 8, S0222: 6, L0794: 5, L0638: 3, L0805: 3, L0664: 3, L0758: 3, L0592: 3, S0010: 2, L0770: 2, L0438: 2, H0624: 1, H0170: 1, S6024: 1, H0441: 1, S0414: 1, H0052: 1, H0572: 1, S6028: 1,			

							H0688: 1, H0616: 1, L0769: 1, L0768: 1, L0803: 1, L0774: 1, L0776: 1, L0659: 1, L0809: 1, L0789: 1, L0792: 1, H0519: 1, H0684: 1, L0745: 1, L0747: 1, L0756: 1, L0786: 1, L0753: 1, L0731: 1, L0759: 1 and L0366: 1.			
HOPKU33	HOPKU33R	1671	2 - 274	3846						
HOVBH23	HOVBH23R	1672	2 - 136	3847	Gly-1 to Val-7.					
HOVBK37	HOVBK37R	1673	237 - 551	3848	Pro-7 to Trp-14.		L0794: 16, L0809: 6, S0360: 4, H0617: 3, L0803: 3, S0114: 2, H0288: 2, H0688: 2, H0494: 2, L0375: 2, L0731: 2, L0588: 2, H0556: 1, S0134: 1, H0484: 1, S0420: 1, H0637: 1, H0441: 1, H0370: 1, H0438: 1, H0592: 1, T0109: 1, S0010: 1, H0150: 1, H0009: 1, H0081: 1, H0271: 1, H0428: 1, S0368: 1, H0424: 1, H0181: 1, H0124: 1, S0438: 1, S0440: 1,			

							S0144: 1, S0142: 1, S0344: 1, L0637: 1, L5566: 1, L0761: 1, L0764: 1, L0648: 1, L0662: 1, L0364: 1, L0766: 1, L5574: 1, L0805: 1, L0783: 1, L0647: 1, L0789: 1, L0665: 1, H0520: 1, H0547: 1, H0670: 1, H0660: 1, H0648: 1, S0380: 1, H0521: 1, H0555: 1, S3012: 1, L0748: 1, L0779: 1, L0780: 1, L0757: 1, L0759: 1 and H0352: 1.			
HOVBK49	HOVBK49R	1674	3 - 86	3849	His-7 to Lys-20.					
HOVBS15	HOVBS15R	1675	144 - 404	3850	Glu-13 to Trp-32, Pro-34 to Asn-45.					
HOVBX41	HOVBX41R	1676	41 - 349	3851						
HOVCL23	HOVCL23R	1677	342 - 524	3852			S0360: 2, H0497: 2, H0333: 1, H0004: 1, H0428: 1, H0674: 1, S0422: 1, L0763: 1, L0803: 1, H0648: 1 and S0276: 1.			
HOVCN03	HOVCN03R	1678	2 - 127	3853	Gly-1 to Glu-7, Gly-29 to Ala-36.					
HOVCO26	HOVCO26R	1679	395 - 580	3854						
HOVCU89	HOVCU89R	1680	3 - 578	3855	Lys-63 to Ser-69,					

HOVCV33	HOVCV33R	1681	1 - 471	3856	Tyr-95 to His-102, Tyr-105 to Leu-111.			
HOVCW45	HOVCW45R	1682	2 - 226	3857	Ser-15 to Tyr-21, Gly-32 to Arg-37.			
						H0615: 2, L0748: 2, H0656: 1, S0007: 1, H0486: 1, H0041: 1, H0355: 1, S0250: 1, S0003: 1, H0688: 1, H0428: 1, H0622: 1, T0042: 1, L0768: 1, L0657: 1, L0526: 1, H0702: 1, L0565: 1, H0547: 1, H0519: 1, S0152: 1, S0390: 1, L0745: 1, L0749: 1, L0779: 1, L0588: 1, L0608: 1 and L0593: 1.		
HOVCY68	HOVCY68R	1683	333 - 551	3858				
HOVCZ45	HOVCZ45R	1684	53 - 220	3859	Ile-32 to Arg-37.			
HOVDB43	HOVDB43R	1685	110 - 289	3860				
HOVDB61	HOVDB61R	1686	34 - 204	3861				
HOVDB62	HOVDB62R	1687	1 - 270	3862				
HOVDB65	HOVDB65R	1688	37 - 498	3863				
HOVDD26	HOVDD26R	1689	24 - 257	3864				
HOVDE46	HOVDE46R	1690	253 - 393	3865	Asp-1 to Lys-6.			
HOVDG60	HOVDG60R	1691	92 - 184	3866				
HOVDG71	HOVDG71R	1692	74 - 154	3867				
HOVDH09	HOVDH09R	1693	3 - 365	3868	Pro-1 to Tyr-8,			

					Gln-14 to Gln-19, Arg-25 to Glu-37, Asn-44 to Arg-50, Glu-67 to Leu-75, Thr-105 to Gly-114.				
HOVDH75	HOVDH75R	1694	43 - 348	3869					
HOVDU91	HOVDU91R	1695	3 - 233	3870					

HOVDV70	HOVDV70R	1696	60 - 293	3871	Ile-12 to Gln-17.	H0251: 1, H0184: 1, H0045: 1, H0014: 1, S0388: 1, S0051: 1, H0594: 1, H0188: 1, H0687: 1, L0052: 1, H0328: 1, H0428: 1, H0181: 1, H0032: 1, H0090: 1, H0087: 1, H0413: 1, H0561: 1, S0372: 1, H0647: 1, S0144: 1, S0002: 1, H0026: 1, L0761: 1, L0627: 1, L0648: 1, L0766: 1, L0774: 1, L0805: 1, L0656: 1, L0659: 1, L0636: 1, L0383: 1, L0666: 1, L0663: 1, L0665: 1, S0428: 1, H0689: 1, H0670: 1, H0539: 1, S0013: 1, S0174: 1, L0751: 1, L0777: 1, L0752: 1, H0445: 1, L0608: 1, L0595: 1 and H0136: 1.		
						L0752: 3, L0731: 3, L0747: 2, L0753: 2, H0265: 1, S0116: 1, S0420: 1, H0428: 1, L0769: 1, L0767: 1,		

							L0766: 1, L0775: 1, L0776: 1, H0555: 1, L0742: 1, L0748: 1, L0757: 1 and L0759: 1.		
HOVDW60	HOVDW60R	1697	64 - 264	3872	Tyr-22 to Ala-28.		H0428: 1 and S3014: 1.		
HOVDZ66	HOVDZ66R	1698	99 - 257	3873	Gly-40 to His-48.		H0428: 2		
HOVEA43	HOVEA43R	1699	247 - 396	3874					
HOVEB25	HOVEB25R	1700	169 - 363	3875	Ala-20 to Gln-25.				
HOVEE84	HOVEE84R	1701	410 - 589	3876	Ser-7 to Trp-13, Phe-19 to Ala-25.				
HOVEE92	HOVEE92R	1702	3 - 143	3877			S0474: 66, L0439: 16, H0547: 15, L0748: 15, L0731: 10, S0360: 9, L0770: 9, S0408: 8, S0358: 7, L0771: 7, L0775: 7, L0747: 6, L0592: 6, H0428: 5, S0438: 5, L0659: 5, L0664: 5, L0665: 5, L0752: 5, L0757: 5, H0506: 5, S0007: 4, H0549: 4, S0440: 4, L0769: 4, L0768: 4, L0774: 4, L0663: 4, H0519: 4, S0152: 4, L0750: 4, L0779: 4, L0755: 4, L0759: 4, L0591: 4, L0595: 4, S0444: 3, H0510: 3, H0615: 3, H0551: 3,		

	H0100: 3, L0598: 3, L0638: 3, L0766: 3, S0380: 3, L0594: 3, H0341: 2, S0420: 2, S0442: 2, H0722: 2, L0717: 2, H0550: 2, S0222: 2, H0587: 2, H0574: 2, H0632: 2, H0013: 2, H0575: 2, H0581: 2, H0544: 2, H0012: 2, H0687: 2, H0628: 2, S0036: 2, H0509: 2, L0637: 2, L0764: 2, L0773: 2, L0803: 2, L0375: 2, L0806: 2, L0783: 2, L0666: 2, H0520: 2, H0684: 2, H0659: 2, H0521: 2, L0745: 2, L0756: 2, S0436: 2, L0596: 2, L0593: 2, L0362: 2, S0194: 2, H0543: 2, H0624: 1, H0170: 1, H0171: 1, H0717: 1, H0657: 1, H0671: 1, H0663: 1, H0664: 1, H0459: 1, S0356: 1, S0410: 1, H0637: 1, S0476: 1, H0645: 1, S6026: 1,	
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		S0300: 1, H0369: 1, H0431: 1, H0586: 1, H0497: 1, H0331: 1, L0021: 1, S0049: 1, H0184: 1, L0738: 1, H0545: 1, H0046: 1, H0563: 1, H0123: 1, H0050: 1, L0471: 1, H0620: 1, H0014: 1, S0388: 1, S0051: 1, H0356: 1, H0266: 1, S0003: 1, H0039: 1, H0622: 1, T0006: 1, H0617: 1, S0366: 1, H0090: 1, H0040: 1, H0616: 1, S0038: 1, T0041: 1, H0494: 1, S0014: 1, S0150: 1, L0369: 1, L0640: 1, L0763: 1, L5565: 1, L0761: 1, L0373: 1, L0372: 1, L0646: 1, L0521: 1, L0662: 1, L0804: 1, L0651: 1, L0652: 1, L0776: 1, L0527: 1, L0657: 1, L0526: 1, L0384: 1, L0809: 1, L0545: 1, L0790: 1, L0792: 1, H0144: 1, L0438: 1,					
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HOVEF34	HOVEF34R	1703	288 - 497	3878				H0593: 1, S0126: 1, H0682: 1, H0660: 1, H0648: 1, S0328: 1, H0539: 1, S0378: 1, S0350: 1, H0696: 1, S0028: 1, S0206: 1, L0740: 1, L0777: 1, L0758: 1, S0434: 1, H0217: 1, S0192: 1, S0412: 1 and S0456: 1.	
HOVEF81	HOVEF81R	1704	1 - 393	3879	Gln-4 to Gln-10, Lys-35 to Ala-60, Pro-66 to Ser-79.			L0750: 11, L0740: 7, L0747: 5, H0341: 4, L0757: 4, H0641: 3, L0766: 3, L0748: 3, L0754: 3, L0752: 3, L0593: 3, H0171: 2, S0134: 2, S0442: 2, S0010: 2, H0428: 2, H0538: 2, L0770: 2, L0774: 2, L0776: 2, L0517: 2, L0438: 2, H0519: 2, H0684: 2, L0777: 2, L0755: 2, L0731: 2, L0758: 2, S0026: 2, H0170: 1, T0002: 1, S0114: 1, S0116: 1, H0663: 1, S0358: 1, S0360: 1, S0007: 1, S0046: 1,	

						H0411: 1, H0592: 1, H0486: 1, H0013: 1, L0022: 1, H0575: 1, H0581: 1, H0052: 1, H0251: 1, H0012: 1, H0620: 1, H0594: 1, H0398: 1, S0036: 1, H0090: 1, H0038: 1, H0040: 1, H0087: 1, L0475: 1, L0520: 1, L0630: 1, L0521: 1, L0662: 1, L0522: 1, L0803: 1, L0651: 1, L0652: 1, L0655: 1, L0661: 1, L0783: 1, L0809: 1, L0789: 1, L0666: 1, H0689: 1, H0682: 1, H0659: 1, H0670: 1, S0330: 1, H0539: 1, H0436: 1, L0605: 1, L0366: 1, S0276: 1, H0542: 1 and H0423: 1.			
HOVEG73	HOVEG73R	1705	3 - 290	3880	Ser-9 to Gly-17, Ser-20 to Pro-26, Arg-32 to His-41.				
HOVEJ15	HOVEJ15R	1706	160 - 468	3881		L0809: 8, L0794: 5, L0439: 5, L0758: 5, H0617: 4, L0438: 4, L0754: 4, L0731: 4,			

						H0295: 3, L0776: 3, H0619: 2, H0441: 2, H0253: 2, H0545: 2, H0188: 2, H0687: 2, H0428: 2, H0424: 2, H0213: 2, H0031: 2, L0769: 2, L0803: 2, L0792: 2, H0539: 2, L0748: 2, L0745: 2, L0747: 2, L0757: 2, H0717: 1, H0549: 1, S0222: 1, H0333: 1, H0318: 1, S0049: 1, L0738: 1, H0046: 1, H0024: 1, H0090: 1, H0649: 1, S0142: 1, L0763: 1, L0642: 1, L0764: 1, L0771: 1, L0649: 1, L0651: 1, L0632: 1, L0805: 1, L0790: 1, H0144: 1, H0723: 1, H0682: 1, H0696: 1, H0555: 1, S0028: 1, L0742: 1, L0744: 1 and L0752: 1.			
HOVEL51	HOVEL51R	1707	60 - 209	3882	Ser-13 to Val-21, Thr-45 to Ser-50.				
HOVEN79	HOVEN79R	1708	146 - 265	3883					
HOVEN86	HOVEN86R	1709	1 - 168	3884					
HOVEP45	HOVEP45R	1710	1 - 102	3885					

HOVEW80	HOVEW80R	1711	2 - 244	3886		Lys-5 to Ser-18.	L0803: 7, L0748: 4, L0439: 4, L0804: 3, L0750: 3, L0756: 3, H0024: 2, L0438: 2, L0747: 2, L0779: 2, H0624: 1, H0171: 1, H0661: 1, S0354: 1, H0208: 1, S0300: 1, H0441: 1, H0331: 1, H0013: 1, S0214: 1, H0428: 1, H0040: 1, L0770: 1, L0776: 1, L0809: 1, L0665: 1, H0547: 1, H0658: 1, S0432: 1, L0749: 1, L0777: 1, L0780: 1, L0755: 1 and L0759: 1.	
HOVEY58	HOVEY58R	1712	175 - 405	3887				
HOVFD79	HOVFD79R	1713	3 - 152	3888		Val-2 to Ser-7.		
HOVJF86	HOVJF86RA	1714	20 - 130	3889				
HOVJH27	HOVJH27RA	1715	2 - 355	3890				
HOVJI53	HOVJI53R	1716	1 - 396	3891				
HOVJJ09	HOVJJ09R	1717	1 - 576	3892		Ser-5 to Gly-10, Glu-18 to Glu-32, Ala-39 to Lys-46, Ser-89 to Arg-96, Pro-141 to Ala-151, Ser-162 to Gln-169.		
HOVJR56	HOVJR56R	1718	1 - 186	3893		Ala-18 to Ser-24, Gly-55 to Thr-60.		

HOVJU75	HOVJU75R	1719	49 - 684	3894	Tyr-44 to Asp-49, Pro-132 to Leu-139, Cys-168 to His-174.			
HOVJW17	HOVJW17R	1720	74 - 301	3895	Ala-8 to Gln-14, Arg-40 to Glu-45.			
HOVJY68	HOVJY68R	1721	199 - 570	3896	Pro-47 to Lys-53, Leu-93 to Lys-102, Tyr-105 to Gln-110, Arg-115 to Lys-124.			
HOVKB02	HOVKB02R	1722	1 - 366	3897	Ala-1 to His-13, Leu-73 to Leu-79.	L0157: 2, H0620: 2, L0666: 2, S0001: 1, L0717: 1, H0549: 1, S0222: 1, H0581: 1, H0194: 1, H0015: 1, H0399: 1, H0271: 1, H0688: 1, H0428: 1, H0124: 1, L0637: 1, H0672: 1, L0439: 1, L0750: 1 and H0423: 1.		
HOVKE66	HOVKE66R	1723	2 - 487	3898	Ala-20 to Val-38, Cys-43 to Thr-60, Arg-91 to Lys-97.			
HOVKF20	HOVKF20R	1724	1 - 168	3899	Gln-15 to Leu-20, Pro-37 to Thr-44.			
HOVKG18	HOVKG18R	1725	2 - 406	3900	Cys-23 to His-29, Ser-74 to Glu-91.			
HPAMB11	HPAMB11R	1726	323 - 511	3901	Gln-8 to Tyr-14, Pro-20 to Thr-26.			
HPAMB60	HPAMB60R	1727	2 - 586	3902				

HPAMB62	HPAMB62R	1728	2 - 196	3903	Leu-12 to Ser-21.	L0439: 11, L0747: 8, H0624: 6, L0759: 6, L0779: 5, L0758: 5, H0013: 4, L0803: 4, L0754: 4, H0171: 3, L0666: 3, L0756: 3, L0752: 3, L0755: 3, L0591: 3, L0608: 3, H0170: 2, H0650: 2, H0341: 2, H0663: 2, S0360: 2, S0003: 2, L0769: 2, L0796: 2, L0766: 2, L0649: 2, L0806: 2, H0696: 2, S0028: 2, L0740: 2, L0750: 2, L0777: 2, S0436: 2, L0361: 2, S0298: 1, S0418: 1, S0444: 1, S0408: 1, H0733: 1, H0734: 1, S0300: 1, S0220: 1, H0497: 1, H0333: 1, H0270: 1, H0575: 1, H0036: 1, H0590: 1, H0596: 1, H0050: 1, L0471: 1, H0015: 1, S0388: 1, S6028: 1, H0266: 1, H0328: 1, H0622: 1, H0708: 1, H0591: 1, H0040: 1,		
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									H0087: 1, H0412: 1, H0059: 1, S0112: 1, H0625: 1, S0440: 1, S0150: 1, S0422: 1, L0598: 1, H0529: 1, L0770: 1, L0761: 1, L0646: 1, L0764: 1, L0662: 1, L0768: 1, L0794: 1, L0650: 1, L0774: 1, L0775: 1, L0375: 1, L0659: 1, L0809: 1, L0530: 1, L0664: 1, L0665: 1, S0053: 1, L0438: 1, H0547: 1, H0519: 1, H0682: 1, H0659: 1, H0658: 1, H0660: 1, H0539: 1, S0152: 1, S0044: 1, L0749: 1, L0757: 1, H0445: 1, S0394: 1, L0596: 1, L0594: 1, S0026: 1, S0276: 1, H0543: 1, H0423: 1, S0412: 1 and H0293: 1.					
HPAMB93	HPAMB93R	1729	2 - 439	3904										
HPAMC04	HPAMC04R	1730	134 - 334	3905										
HPAMC19	HPAMC19R	1731	8 - 631	3906										
HPAMC27	HPAMC27R	1732	1 - 669	3907										
HPAMC90	HPAMC90R	1733	18 - 464	3908	Arg-1 to Gly-6,	S0360: 15, S0358: 14,								

Pro-13 to Thr-20.	L0794: 12, L0747: 12, H0696: 11, H0341: 10, H0670: 10, H0657: 9, S0422: 9, H0659: 8, S0114: 7, H0656: 7, S0408: 7, S0007: 7, H0486: 7, H0543: 7, S0444: 6, L0471: 6, S0126: 6, H0658: 6, S0378: 6, S0406: 6, S0027: 6, H0038: 5, H0040: 5, L0770: 5, L0517: 5, H0648: 5, S0404: 5, L0752: 5, H0423: 5, H0624: 4, H0171: 4, H0716: 4, S0116: 4, S0410: 4, H0545: 4, H0373: 4, H0674: 4, L0520: 4, L0763: 4, L0662: 4, L0775: 4, L0493: 4, L0518: 4, L0809: 4, L0519: 4, S3012: 4, H0445: 4, L0361: 4, H0685: 3, T0049: 3, S0420: 3, H0580: 3, S0132: 3, T0109: 3, H0013: 3, S0346: 3, H0597: 3, H0615: 3, H0616: 3, H0087: 3.
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HPAMD56	HPAMD56R	1734	1 - 504	3909		Glu-10 to Phe-17, Phe-25 to Leu-32, Thr-38 to Tyr-44, Gln-81 to Thr-88.			
HPAME35	HPAME35R	1735	2 - 277	3910		Gly-60 to Phe-66.	L0731: 9, L0653: 8, L0757: 6, L0809: 5, L0747: 5, S0418: 4, S0360: 4, H0188: 4, S0404: 4, L0779: 4, S0040: 3, H0370: 3, H0040: 3, L0774: 3, S0434: 3, S0442: 2, H0575: 2, H0252: 2, S0440: 2, L0374: 2, L0773: 2, H0435: 2, S0406: 2, L0748: 2, L0740: 2, L0754: 2, L0746: 2, L0758: 2, L0581: 2, H0624: 1, H0686: 1, S0180: 1, H0661: 1, S0358: 1, S0476: 1, L0717: 1, H0549: 1, H0455: 1, H0586: 1, H0632: 1, S0280: 1, H0599: 1, H0118: 1, H0235: 1,		

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HPAME58	HPAME58R	1736	184 - 492	3911	Lys-1 to Leu-12.	H0663: 1, L0438: 1 and H0682: 1.			
HPAMF16	HPAMF16R	1737	19 - 513	3912	Glu-1 to Gly-8.				

HPAMF38	HPAMF38R	1738	24 - 449	3913	Ser-35 to Gly-41, Ser-71 to Met-80.	L0752: 12, L0748: 8, L0766: 5, L0599: 5, H0617: 4, L0764: 4, H0081: 3, L0774: 3, L0806: 3, L0776: 3, L0749: 3, L0750: 3, S0444: 2, S0408: 2, H0392: 2, H0150: 2, H0494: 2, H0521: 2, L0756: 2, L0758: 2, H0506: 2, H0352: 2, H0265: 1, H0483: 1, S0358: 1, L0021: 1, H0108: 1, H0024: 1, H0083: 1, S0366: 1, H0090: 1, H0038: 1, H0040: 1, T0041: 1, L0763: 1, L0770: 1, L3905: 1, L0772: 1, L0644: 1, L0645: 1, L0771: 1, L0775: 1, L0651: 1, L0378: 1, L0659: 1, L0666: 1, L0665: 1, L0438: 1, H0519: 1, H0682: 1, H0670: 1, S0188: 1, L0740: 1, L0747: 1, L0777: 1, L0759: 1, H0445: 1, L0596: 1, L0604: 1 and H0542: 1.		
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HPAMG44	HPAMG44R	1739	385 - 666	3914				
HPAMG54	HPAMG54R	1740	3 - 410	3915				
HPAMI11	HPAMI11R	1741	2 - 670	3916	Lys-13 to Tyr-30, Arg-52 to Lys-57, Ser-72 to Thr-79, Thr-110 to Trp-115, Leu-124 to Ala-130, Leu-132 to Glu-138, Asn-141 to Lys-162.			
HPAMJ71	HPAMJ71R	1742	2 - 472	3917				
HPAMQ47	HPAMQ47R	1743	100 - 246	3918		L0777: 5, L0766: 3, L0803: 3, L0439: 3, S0360: 2, L0598: 2, L0666: 2, L0748: 2, T0049: 1, S0134: 1, S0116: 1, L0717: 1, H0586: 1, H0486: 1, H0575: 1, H0510: 1, H0553: 1, H0560: 1, S0422: 1, L0763: 1, L0769: 1, L0521: 1, L0767: 1, L0768: 1, L0775: 1, L0663: 1, S0374: 1, L0438: 1, H0520: 1, H0682: 1, S0328: 1, L0740: 1, L0757: 1, S0192: 1 and H0543: 1.		
HPAMQ76	HPAMQ76R	1744	2 - 190	3919	Pro-18 to Lys-24.			
HPAMT47	HPAMT47R	1745	327 - 509	3920	Thr-27 to Lys-37.		S0358: 8, L0777: 6,	

L0744: 4, H0656: 3, L0766: 3, H0659: 3, H0436: 3, L0754: 3, L0747: 3, L0731: 3, S0026: 3, H0254: 2, S0007: 2, H0587: 2, L0586: 2, H0545: 2, H0150: 2, L0794: 2, H0144: 2, L0750: 2, L0608: 2, S0412: 2, H0170: 1, H0638: 1, S0420: 1, S0442: 1, S0444: 1, H0329: 1, S0045: 1, H0645: 1, H0586: 1, H0333: 1, H0574: 1, H0013: 1, H0250: 1, L0105: 1, H0581: 1, H0196: 1, H0263: 1, H0546: 1, H0457: 1, L0157: 1, L0471: 1, S0051: 1, S0336: 1, S0214: 1, H0428: 1, H0032: 1, H0166: 1, H0673: 1, H0561: 1, S0440: 1, L0763: 1, L0764: 1, L0803: 1, L0804: 1, L0776: 1, T0068: 1, H0547: 1, H0519: 1, H0593: 1, H0690: 1,
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HPAMU33	HPAMU33R	1746	2 - 520	3921	Lys-59 to Tyr-70, Pro-109 to Lys-115.			H0682: 1, H0435: 1, H0670: 1, H0666: 1, H0672: 1, S0328: 1, H0696: 1, L0751: 1, L0749: 1, L0756: 1, L0780: 1, L0757: 1, L0759: 1, H0543: 1, H0423: 1 and H0422: 1.		
HPAMV82	HPAMV82R	1747	207 - 422	3922	Gln-34 to Asn-39.					
HPAMW44	HPAMW44R	1748	1 - 357	3923	Gly-1 to Arg-13, Glu-37 to Lys-42, Gly-45 to Gln-64.			L0742: 11, L0747: 10, L0769: 9, L0766: 9, L0754: 8, L0751: 7, L0777: 7, L0752: 7, L0806: 6, L0776: 6, L0743: 6, L0717: 4, L0665: 4, L0750: 4, S0360: 3, H0580: 3, H0318: 3, H0052: 3, L0471: 3, H0040: 3, T0042: 3, H0547: 3, H0682: 3, L0745: 3, L0779: 3, L0759: 3, L0593: 3, L0601: 3, H0624: 2, H0556: 2, S0045: 2, H0559: 2, H0013: 2, H0530: 2, H0046: 2, H0620: 2, S0051: 2, T0010: 2,		

	H0083: 2, S0002: 2, L0770: 2, L0659: 2, H0520: 2, S0292: 2, L0744: 2, L0740: 2, L0758: 2, L0596: 2, T0049: 1, L0393: 1, S0001: 1, H0663: 1, H0306: 1, H0638: 1, S0420: 1, S0358: 1, S0132: 1, H0619: 1, H0645: 1, H0550: 1, S0222: 1, H0392: 1, H0438: 1, H0257: 1, T0039: 1, T0040: 1, S0280: 1, H0156: 1, H0575: 1, H0618: 1, H0253: 1, S0010: 1, H0581: 1, H0194: 1, H0204: 1, H0150: 1, H0123: 1, H0292: 1, L0194: 1, T0023: 1, H0031: 1, H0553: 1, H0617: 1, H0673: 1, H0169: 1, H0674: 1, H0090: 1, H0269: 1, H0623: 1, H0494: 1, L0475: 1, S0150: 1, H0538: 1, L0763: 1, L0638: 1, L0761: 1, L0646: 1, L0645: 1,	
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HPAMY45	HPAMY45R	1749	291 - 569	3924	Pro-1 to Cys-6, Ala-13 to Ala-19, His-22 to Lys-28, Ser-44 to Cys-53, Pro-56 to Gly-67.					
HPAMZ14	HPAMZ14R	1750	2 - 628	3925	Trp-19 to Ser-27, Pro-185 to Ser-195.					
HPAMZ15	HPAMZ15R	1751	3 - 149	3926						L0493: 91, L0515: 29, L0509: 25, L0514: 21, L0803: 12, L0508: 8, L0604: 7, H0599: 6, L0809: 5, H0445: 5, L0800: 4, L0511: 4, L0362: 4, H0543: 4,

				H0657: 3, L0598: 3, L0498: 3, L0805: 3, L0780: 3, L0755: 3, L0731: 3, L0759: 3, L0591: 3, S0026: 3, H0170: 2, H0373: 2, H0038: 2, H0623: 2, H0494: 2, H0560: 2, H0561: 2, L0503: 2, L0651: 2, L0653: 2, L0776: 2, L0792: 2, H0520: 2, H0555: 2, S0206: 2, L0748: 2, L0749: 2, L0756: 2, L0779: 2, L0590: 2, L0608: 2, H0668: 2, H0422: 2, S0040: 1, S0114: 1, S0134: 1, S0218: 1, H0656: 1, S0212: 1, S0360: 1, H0489: 1, H0580: 1, S0045: 1, S0476: 1, H0431: 1, H0643: 1, L0623: 1, H0486: 1, H0069: 1, H0002: 1, H0097: 1, H0274: 1, S0474: 1, H0421: 1, L0040: 1, H0024: 1, S0003: 1, H0622: 1, H0553: 1, H0032: 1,	
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HPAMZ81	HPAMZ81R	1752	3 - 677	3927	Ser-1 to Lys-25, Glu-71 to Ser-77, Glu-93 to Thr-99.		H0388: 1, H0400: 1, S0036: 1, H0090: 1, H0551: 1, H0264: 1, H0412: 1, S0386: 1, T0042: 1, H0625: 1, S0210: 1, H0529: 1, L0625: 1, L0505: 1, L0506: 1, L0500: 1, L0761: 1, L0646: 1, L0662: 1, L0794: 1, L0375: 1, L0784: 1, L0655: 1, L0510: 1, L0634: 1, L0517: 1, L0519: 1, L0793: 1, L0666: 1, L0664: 1, S0374: 1, H0547: 1, H0519: 1, H0682: 1, H0658: 1, H0648: 1, H0672: 1, H0539: 1, H0521: 1, H0696: 1, S0146: 1, S0390: 1, L0747: 1, L0753: 1, S0260: 1, H0444: 1, S0434: 1, L0584: 1, S0242: 1, S0194: 1, S0276: 1, H0542: 1 and S0424: 1.		
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					Arg-123 to His-134, Pro-141 to His-146, His-198 to Ala-207.				
HPANA05	HPANA05R	1753	2 - 514	3928	Thr-23 to Gln-35, His-37 to Val-51, Arg-70 to Arg-81, Gln-108 to Asp-114, Met-130 to Ser-140.				
HPANA07	HPANA07R	1754	1 - 720	3929	Ala-1 to Thr-6, Lys-19 to Leu-24, Ile-77 to Ala-93, Val-105 to Leu-110, Thr-139 to Thr-153, Thr-165 to Lys-187, Ala-198 to Leu-203, Ser-211 to Lys-226.	H0497: 5, S0002: 5, H0529: 5, H0556: 4, H0046: 3, L0455: 3, T0042: 3, H0520: 3, H0543: 3, H0265: 2, H0657: 2, H0656: 2, H0458: 2, S0358: 2, H0486: 2, H0050: 2, H0124: 2, H0591: 2, H0494: 2, L0662: 2, H0522: 2, L0740: 2, L0751: 2, L0747: 2, L0588: 2, L0605: 2, H0667: 2, H0686: 1, H0650: 1, H0664: 1, H0125: 1, S0418: 1, H0580: 1, S6014: 1, H0257: 1, H0559: 1, H0635: 1, H0427: 1, H0575: 1, H0052: 1, N0006: 1, L0471: 1, H0373: 1, H0083: 1,			

							H0266: 1, S0250: 1, S0022: 1, H0428: 1, H0031: 1, H0383: 1, H0212: 1, S0366: 1, S0036: 1, H0040: 1, H0634: 1, H0561: 1, S0210: 1, L0770: 1, L0761: 1, L0772: 1, L0641: 1, L0644: 1, L0764: 1, L0776: 1, L0655: 1, L0807: 1, L0657: 1, L0665: 1, S0148: 1, S0126: 1, H0682: 1, H0694: 1, S0037: 1, L0744: 1, L0750: 1, L0755: 1, L0731: 1, S0436: 1, L0596: 1, L0485: 1, L0601: 1, S0276: 1, H0423: 1, S0424: 1 and S0446: 1.		
HPANA28	HPANA28R	1755	2 - 376	3930	Gln-22 to Thr-31, Leu-91 to Leu-104.				
HPANA87	HPANA87R	1756	494 - 730	3931	Gln-13 to Gly-28.				
HPANB32	HPANB32R	1757	2 - 247	3932					
HPANC01	HPANC01R	1758	255 - 446	3933	Leu-1 to Ser-8.				
HPANE49	HPANE49R	1759	2 - 412	3934					
HPANE52	HPANE52R	1760	1 - 666	3935	Lys-64 to Tyr-75, Pro-114 to Lys-120, Leu-160 to Lys-169.				

HPANE87	HPANE87R	1761	119 - 652	3936	Tyr-172 to Gln-177, Pro-182 to Val-189.	L0752: 10, L0593: 9, L0775: 8, L0588: 8, L0666: 7, L0665: 7, L0592: 7, L0595: 7, L0363: 6, L0774: 6, L0747: 6, L0362: 6, H0422: 6, L0455: 5, L0659: 5, H0539: 5, H0170: 4, S0360: 4, L0657: 4, H0547: 4, L0749: 4, L0779: 4, L0757: 4, H0657: 3, H0412: 3, L0520: 3, L0761: 3, L0646: 3, L0375: 3, L0651: 3, L0783: 3, H0144: 3, H0520: 3, H0659: 3, H0670: 3, H0648: 3, L0740: 3, L0750: 3, L0756: 3, L0731: 3, L0759: 3, L0591: 3, L0608: 3, H0662: 2, S0376: 2, H0637: 2, H0619: 2, L0717: 2, S0280: 2, H0318: 2, T0010: 2, H0040: 2, H0413: 2, L0351: 2, H0646: 2, L0763: 2.		
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HPANJ67	HPANJ67R	1762	3 - 119	3937	Ser-5 to Ser-14, Gln-21 to Gln-28.					
HPANK61	HPANK61R	1763	170 - 310	3938			H0328: 2, H0674: 2, L0774: 2, L0805: 2, H0682: 2, L0731: 2, H0306: 1, L0770: 1, L0764: 1, L0809: 1, H0520: 1, H0660: 1, H0521: 1, L0744: 1, L0751: 1, L0750: 1, L0752: 1, S0026: 1, H0352: 1 and L0360: 1.			
HPCOB29	HPCOB29R	1764	2 - 139	3939						
HPCOB69	HPCOB69R	1765	47 - 118	3940						
HPCOJ59	HPCOJ59R	1766	3 - 308	3941	Pro-1 to Val-6,		H0659: 2			

[illegible]

						S0214: 1, H0031: 1, H0628: 1, H0598: 1, H0038: 1, H0634: 1, H0616: 1, H0551: 1, H0412: 1, L0370: 1, H0494: 1, H0625: 1, S0440: 1, S0344: 1, H0529: 1, L0770: 1, L0646: 1, L0645: 1, L0648: 1, L0521: 1, L0775: 1, L0525: 1, L0805: 1, L0657: 1, L0782: 1, L0663: 1, L0665: 1, H0547: 1, H0519: 1, H0711: 1, H0659: 1, H0660: 1, H0518: 1, S0152: 1, H0521: 1, L0745: 1, L0759: 1, S0434: 1, L0590: 1, L0592: 1, L0594: 1, H0667: 1, H0423: 1, H0422: 1, S0424: 1 and H0506: 1.				
HPCOK93	HPCOK93R	1769	1 - 108	3944						
HPCOL81	HPCOL81R	1770	33 - 179	3945	Lys-42 to Val-49.					
HPCOO90	HPCOO90R	1771	3 - 335	3946	Ala-3 to Gly-9.					
HPCOO95	HPCOO95R	1772	343 - 2	3947	Tyr-12 to Ile-17, Pro-28 to Asn-33, Arg-45 to Asp-53.					
HPCOP23	HPCOP23R	1773	2 - 427	3948						

HPCOQ33	HPCOQ33R	1774	417 - 548	3949			L0803: 8, L0777: 8, L0794: 7, L0766: 7, H0144: 5, L0438: 5, H0547: 5, L0439: 5, H0013: 4, L0779: 4, H0441: 3, S0440: 3, L0762: 3, L0771: 3, L0662: 3, L0666: 3, L0665: 3, L0748: 3, L0752: 3, H0656: 2, H0341: 2, S0418: 2, S0356: 2, H0575: 2, H0328: 2, H0615: 2, H0040: 2, H0477: 2, T0041: 2, L0598: 2, L0763: 2, L0659: 2, L0663: 2, L0664: 2, H0659: 2, L0602: 2, S0406: 2, L0755: 2, L0759: 2, L0592: 2, H0624: 1, H0170: 1, H0171: 1, S0134: 1, H0583: 1, H0650: 1, H0657: 1, L0415: 1, S0116: 1, H0661: 1, H0664: 1, S0420: 1, L0005: 1, S0444: 1, S0360: 1, S0408: 1, S0046: 1, S0476: 1,
HPCOQ85	HPCOQ85R	1775	2 - 259	3950			

						S0300: 1, L0717: 1, H0411: 1, H0486: 1, T0039: 1, H0318: 1, H0581: 1, H0123: 1, H0014: 1, H0354: 1, H0179: 1, S0003: 1, H0628: 1, H0032: 1, S0036: 1, L0060: 1, H0264: 1, H0412: 1, L0564: 1, H0625: 1, H0131: 1, H0646: 1, S0002: 1, L0770: 1, L0637: 1, L0761: 1, L0800: 1, L0764: 1, L0649: 1, L0804: 1, L0650: 1, L0519: 1, L0352: 1, H0519: 1, S0126: 1, H0658: 1, H0648: 1, H0672: 1, S0328: 1, S0330: 1, H0518: 1, H0696: 1, H0704: 1, S0027: 1, L0743: 1, L0754: 1, L0747: 1, L0758: 1, S0434: 1, L0591: 1, S0011: 1, H0543: 1, H0422: 1, H0506: 1 and H0721: 1.		
HPCOQ92	HPCOQ92R	1776	483 - 641	3951				
HPCOR41	HPCOR41R	1777	133 - 396	3952	Ala-44 to Gly-50.			

HPCOR52	HPCOR52R	1778	43 - 432	3953				S0414: 16, S0360: 6, S0358: 5, L0766: 5, H0574: 4, H0521: 4, L0754: 4, L0756: 4, S0422: 3, L0770: 3, H0547: 3, H0672: 3, L0596: 3, H0251: 2, H0615: 2, H0090: 2, L0646: 2, L0662: 2, L0776: 2, L0659: 2, L0752: 2, L0758: 2, S0436: 2, L0595: 2, H0624: 1, L0002: 1, H0583: 1, H0650: 1, S0116: 1, S0298: 1, S0282: 1, S0418: 1, H0722: 1, H0734: 1, S0045: 1, S0300: 1, L0717: 1, S0222: 1, H0013: 1, L0021: 1, H0706: 1, L0105: 1, H0263: 1, L0041: 1, H0057: 1, S0050: 1, L0163: 1, H0051: 1, S0388: 1, S0051: 1, H0271: 1, S0003: 1, H0644: 1, H0032: 1, H0673: 1, H0379: 1, H0272: 1, H0059: 1,
HPCOU70	HPCOU70R	1779	137 - 355	3954				

							H0130: 1, H0647: 1, S0210: 1, S0426: 1, H0529: 1, L0637: 1, L0372: 1, L0649: 1, L0775: 1, L0651: 1, L0806: 1, L0657: 1, L0518: 1, L0788: 1, L0666: 1, L0663: 1, L0665: 1, H0144: 1, L0438: 1, H0519: 1, H0689: 1, H0690: 1, H0659: 1, S0380: 1, H0696: 1, S0406: 1, H0436: 1, H0478: 1, H0727: 1, L0439: 1, L0731: 1, H0595: 1, S0434: 1, L0608: 1, H0667: 1, S0196: 1, H0422: 1, S0424: 1 and H0506: 1.			
HPCOV35	HPCOV35R	1780	151 - 657	3955	Lys-4 to Lys-16.					
HPCOV41	HPCOV41R	1781	3 - 356	3956						
HPCOX43	HPCOX43R	1782	158 - 418	3957	Asn-9 to Trp-14, Pro-20 to Arg-46.					
HPCPB38	HPCPB38R	1783	294 - 473	3958		L0439: 3, L0438: 1, H0659: 1, H0648: 1 and S0330: 1.				
HPCPD26	HPCPD26R	1784	3 - 314	3959						
HPCPE33	HPCPE33R	1785	308 - 427	3960		H0551: 11, L0766: 10, L0794: 8, S0026: 7.				

	H0556: 6, L0770: 6, H0659: 6, H0521: 6, L0740: 5, H0661: 4, H0638: 4, H0497: 4, H0560: 4, H0170: 3, H0341: 3, S0360: 3, H0318: 3, H0561: 3, L0731: 3, L0757: 3, H0265: 2, S0418: 2, S0420: 2, S0356: 2, S0132: 2, S0278: 2, T0115: 2, T0110: 2, H0083: 2, S0214: 2, H0622: 2, H0617: 2, S0364: 2, H0090: 2, T0042: 2, H0366: 2, H0646: 2, S0002: 2, H0529: 2, L0369: 2, L0769: 2, L0646: 2, L0776: 2, L0655: 2, L0809: 2, L0789: 2, L0666: 2, L0664: 2, L0777: 2, L0758: 2, L0593: 2, H0668: 2, H0543: 2, H0423: 2, T0002: 1, S0342: 1, H0716: 1, H0657: 1, S0212: 1, H0402: 1, L0005: 1, S0376: 1, H0580: 1, H0339: 1,					
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							S0194: 1, H0542: 1, H0422: 1 and H0506: 1.		
HPCPH50	HPCPH50R	1786	93 - 209	3961			H0659: 2, L0752: 2, L0595: 2 and H0686: 1.		
HPCPH51	HPCPH51R	1787	203 - 412	3962	Pro-10 to Val-15, Ser-25 to Asn-32.				
HPCPH52	HPCPH52R	1788	3 - 101	3963					
HPCPH68	HPCPH68R	1789	191 - 322	3964					
HPCPU27	HPCPU27R	1790	3 - 116	3965	Pro-29 to Gln-38.				
HPCPW09	HPCPW09R	1791	201 - 407	3966	Gln-47 to Lys-55.		L0766: 10, L0754: 9, S0358: 6, H0616: 6, H0551: 5, L0439: 5, H0657: 4, H0497: 4, S0003: 4, H0038: 4, S0422: 4, S0374: 4, H0659: 4, S0045: 3, H0644: 3, H0412: 3, H0529: 3, L0662: 3, L0805: 3, L0657: 3, L0663: 3, H0521: 3, H0624: 2, H0171: 2, S0040: 2, H0638: 2, S0418: 2, L0005: 2, S0376: 2, H0546: 2, H0046: 2, H0553: 2, H0169: 2, H0591: 2, H0413: 2, H0623: 2, L0646: 2, L0771: 2, L0803: 2, L0526: 2, L0666: 2, L0664: 2,		

S0330: 2, S0380: 2, L0748: 2, L0777: 2, L0758: 2, S0242: 2, H0170: 1, H0656: 1, S0116: 1, H0341: 1, S0212: 1, H0671: 1, S0356: 1, S0442: 1, S0360: 1, S0132: 1, H0619: 1, L0717: 1, S0278: 1, H0574: 1, H0632: 1, H0486: 1, T0114: 1, H0013: 1, L0105: 1, S0474: 1, T0110: 1, H0545: 1, L0471: 1, H0373: 1, H0290: 1, H0688: 1, H0622: 1, L0483: 1, H0628: 1, L0055: 1, H0673: 1, H0674: 1, H0068: 1, H0090: 1, H0056: 1, T0041: 1, H0560: 1, H0561: 1, S0440: 1, H0509: 1, S0150: 1, H0646: 1, S0144: 1, L0598: 1, H0517: 1, L0369: 1, L0372: 1, L0773: 1, L0804: 1, L0774: 1, L0653: 1, L0655: 1, L0527: 1, L0659: 1,					
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HPCPX80	HPCPX80R	1792	209 - 298	3967	His-25 to Lys-30.		H0659: 2, L0438: 1 and L0439: 1.			
HPCQO79	HPCQO79R	1793	74 - 256	3968	Thr-19 to Leu-24.					
HPCQO91	HPCQO91R	1794	270 - 479	3969			H0521: 13, L0659: 10, L0779: 10, H0551: 9, S0360: 6, S0214: 6, L0770: 6, L0649: 6, L0666: 6, L0731: 6, H0170: 5, H0638: 5, S0376: 5, H0580: 5, H0575: 5, H0553: 5, S0210: 5, L0662: 5, L0776: 5, L0657: 5, H0547: 5, L0439: 5, H0656: 4, S0358: 4, H0676: 4, H0574: 4, H0486: 4, H0318: 4, S0003: 4, L0655: 4,			

L0663: 4, L0665: 4, H0659: 4, L0756: 4, L0757: 4, H0445: 4, H0542: 4, S0212: 3, H0009: 3, L0157: 3, L0471: 3, H0024: 3, H0494: 3, L0763: 3, L0637: 3, L0646: 3, L0764: 3, S0052: 3, H0672: 3, L0748: 3, L0750: 3, L0752: 3, L0755: 3, L0608: 3, S0026: 3, H0543: 3, H0171: 2, H0556: 2, H0657: 2, L0785: 2, S0420: 2, L0005: 2, H0156: 2, S0474: 2, H0581: 2, H0251: 2, H0545: 2, H0373: 2, H0477: 2, H0412: 2, H0413: 2, T0041: 2, S0466: 2, H0641: 2, S0144: 2, L0372: 2, L0774: 2, L0805: 2, L0783: 2, L0664: 2, S0374: 2, L0438: 2, H0658: 2, H0670: 2, H0660: 2, H0539: 2, H0522: 2, H0436: 2, L0742: 2, L0777: 2,	
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							H0646: 1, S0142: 1, S0344: 1, S0002: 1, S0426: 1, H0695: 1, L0369: 1, L0772: 1, L0765: 1, L0771: 1, L0648: 1, L0560: 1, L0386: 1, L0381: 1, L0804: 1, L0775: 1, L0806: 1, L0658: 1, S0428: 1, H0144: 1, H0520: 1, S0126: 1, H0690: 1, H0682: 1, H0435: 1, H0666: 1, S0330: 1, S0380: 1, H0518: 1, S0152: 1, S0350: 1, H0696: 1, S0044: 1, S0037: 1, S0028: 1, L0747: 1, S0031: 1, H0444: 1, L0588: 1, L0594: 1, L0601: 1, S0011: 1, H0667: 1, H0423: 1, H0422: 1 and H0008: 1.					
HPCQQ66	HPCQQ66R	1795	113 - 271	3970								
HPCQT27	HPCQT27R	1796	119 - 265	3971								
HPCQT88	HPCQT88R	1797	1 - 345	3972								
HPCQW64	HPCQW64R	1798	2 - 229	3973	Pro-3 to Cys-9, Asn-28 to Phe-37.							
HPCQW77	HPCQW77R	1799	259 - 408	3974				L0758: 6, L0779: 5, L0766: 4, L0731: 4,				

HPCQX47	HPCQX47R	1800	174 - 326	3975	Lys-1 to Val-6.	S0360: 2, L0769: 2, L0649: 2, H0648: 2, L0744: 2, L0740: 2, L0747: 2, L0777: 2, L0755: 2, L0757: 2, L0599: 2, H0171: 1, T0049: 1, H0657: 1, H0255: 1, H0638: 1, S0408: 1, H0619: 1, H0037: 1, H0052: 1, L0471: 1, H0014: 1, H0316: 1, S0438: 1, L0520: 1, L0763: 1, L0770: 1, L0637: 1, L0761: 1, L0373: 1, L0764: 1, L0774: 1, L0775: 1, L0375: 1, L0776: 1, L0655: 1, L0527: 1, L0542: 1, L0382: 1, L0519: 1, H0144: 1, H0682: 1, H0659: 1, H0660: 1, H0696: 1, H0555: 1, S3012: 1, L0439: 1, L0751: 1, L0754: 1, L0745: 1, L0749: 1, L0752: 1, L0759: 1, H0542: 1, S0458: 1 and S0384: 1.		
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HPCRN90	HPCRN90R	1801	2 - 109	3976					
HPCTD21	HPCTD21R	1802	228 - 560	3977	Ser-8 to Lys-21, Gln-47 to Glu-52, Arg-72 to Arg-87.				
HPCTD23	HPCTD23R	1803	350 - 760	3978	Met-4 to Lys-18, Gln-44 to Glu-49, Arg-69 to Arg-84.				
HPCTD25	HPCTD25R	1804	269 - 598	3979	Asn-1 to Lys-20, Gln-46 to Glu-51, Arg-71 to Arg-86.				
HPCTD61	HPCTD61R	1805	354 - 713	3980	Asn-1 to Lys-21, Gln-47 to Glu-52, Arg-72 to Arg-87.				
HPCTF29	HPCTF29R	1806	2 - 595	3981					
HPCTF83	HPCTF83R	1807	1 - 177	3982					L0655: 22, H0648: 8, H0638: 4, H0318: 4, L0776: 4, L0659: 4, L0751: 4, L0747: 4, L0599: 4, S0358: 3, L0761: 3, L0775: 3, L0760: 2, H0255: 2, H0663: 2, S0360: 2, H0486: 2, L0142: 2, H0087: 2, L0662: 2, L0378: 2, L0653: 2, L0783: 2, L0666: 2, L0664: 2, L0665: 2, L0743: 2, L0756: 2, L0777: 2, L0362: 2, L0600: 2, H0650: 1.

	H0657: 1, H0692: 1, H0381: 1, H0306: 1, H0402: 1, H0305: 1, S0376: 1, S0300: 1, H0441: 1, L0622: 1, L0623: 1, L0586: 1, H0635: 1, L0022: 1, H0042: 1, H0575: 1, H0581: 1, H0052: 1, H0597: 1, H0231: 1, H0109: 1, H0029: 1, H0039: 1, T0006: 1, H0031: 1, H0166: 1, H0673: 1, H0674: 1, H0163: 1, H0063: 1, H0413: 1, H0359: 1, H0396: 1, H0647: 1, H0646: 1, S0002: 1, H0529: 1, L0762: 1, L0769: 1, L0667: 1, L0772: 1, L0372: 1, L0771: 1, L0767: 1, L0768: 1, L0387: 1, L0766: 1, L0774: 1, L0784: 1, L0606: 1, L0607: 1, L0629: 1, L0657: 1, L0518: 1, L0782: 1, L0809: 1, L0787: 1, L0789: 1, L0790: 1, L0663: 1,				
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							H0690: 1, H0659: 1, H0672: 1, H0651: 1, S0328: 1, S0378: 1, H0521: 1, H0522: 1, S0044: 1, H0214: 1, H0187: 1, L0748: 1, L0740: 1, L0755: 1, H0445: 1, H0595: 1, S0106: 1, S0462: 1 and H0677: 1.			
HPCTI39	HPCTI39R	1808	1 - 114	3983						
HPCTI86	HPCTI86R	1809	1 - 306	3984	Lys-37 to Arg-42, Ser-74 to Thr-81.					
HPCTN62	HPCTN62R	1810	341 - 451	3985	Arg-6 to Asp-15.					
HPCTO69	HPCTO69R	1811	23 - 538	3986						
HPCTP60	HPCTP60R	1812	191 - 343	3987			H0052: 3, H0624: 2, H0014: 2, H0375: 2, L0598: 2, L0662: 2, L0803: 2, L0792: 2, L0666: 2, L0664: 2, H0659: 2, L0742: 2, L0743: 2, L0754: 2, H0423: 2, H0171: 1, H0686: 1, S0360: 1, H0486: 1, H0194: 1, L0041: 1, L0471: 1, H0687: 1, H0040: 1, H0264: 1, S0440: 1, S0422: 1, L0761: 1, L0646: 1, L0804: 1,			

							L0352: 1, H0670: 1, L0744: 1, L0740: 1, L0780: 1, L0759: 1 and H0506: 1.			
HPCTR60	HPCTR60R	1813	307 - 495	3988			L0803: 2, H0413: 1, L0650: 1, L0666: 1, H0689: 1, H0659: 1, H0658: 1, L0758: 1, L0759: 1 and S0242: 1.			
HPCTT47	HPCTT47R	1814	3 - 128	3989		Gly-4 to Lys-9.				
HPCTV40	HPCTV40R	1815	3 - 377	3990						
HPCTV53	HPCTV53R	1816	2 - 274	3991		Pro-7 to Ala-13.				
HPCTV92	HPCTV92R	1817	2 - 205	3992						
HPCTX22	HPCTX22R	1818	1 - 153	3993		Asn-27 to Lys-36.	L0439: 11, L0740: 10, L0752: 10, L0659: 8, L0748: 7, L0005: 6, S0358: 6, L0471: 6, S0214: 6, L0803: 6, L0517: 6, L0666: 6, L0759: 6, L0664: 5, L0665: 5, S0126: 5, H0574: 4, H0156: 4, L0646: 4, L0771: 4, L0766: 4, S0374: 4, H0659: 4, L0754: 4, L0749: 4, L0731: 4, L0362: 4, H0170: 3, H0341: 3, H0632: 3, S0003: 3, H0413: 3, H0529: 3, L0369: 3,			

			L0770: 3, L0637: 3, L0775: 3, L0663: 3, S0378: 3, H0478: 3, S0026: 3, S0212: 2, S0360: 2, H0580: 2, S0045: 2, H0431: 2, H0331: 2, H0427: 2, H0599: 2, H0039: 2, H0553: 2, H0551: 2, S0002: 2, L0772: 2, L0653: 2, L0654: 2, L0776: 2, L0655: 2, L0661: 2, H0547: 2, H0519: 2, S0028: 2, L0755: 2, H0543: 2, H0624: 1, H0171: 1, T0002: 1, H0657: 1, H0656: 1, L0415: 1, S0116: 1, S0418: 1, S0420: 1, S0354: 1, L0430: 1, H0208: 1, H0642: 1, H0013: 1, L0021: 1, T0082: 1, S0010: 1, H0318: 1, H0052: 1, H0544: 1, H0123: 1, H0620: 1, H0024: 1, H0014: 1, H0275: 1, H0355: 1, H0510: 1, H0266: 1, H0290: 1, H0615: 1,			
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HPCTY38	HPCTY38R	1819	381 - 578	3994		L0666: 19, L0752: 14, S0358: 12, L0770: 10, L0439: 10, L0754: 10, L0659: 8, H0574: 7, L0663: 7, L0664: 7, H0659: 7, L0758: 7, L0759: 7, S0408: 6, H0519: 6, L0740: 6, L0750: 6, L0731: 6,				

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HPDOA92	HPDOA92R	1820	57 - 209	3995	Asp-1 to Leu-6.					
HPDOF32	HPDOF32R	1821	1 - 99	3996						
HPDOF81	HPDOF81R	1822	3 - 287	3997	Gln-20 to Leu-25.					
HPDOP05	HPDOP05R	1823	2 - 412	3998	Asp-11 to Val-19, Cys-36 to Asp-58, Lys-102 to Lys-111, Ile-115 to Ala-125, Val-127 to Gln-132.	L0747: 12, L0750: 12, H0052: 9, H0547: 8, H0659: 8, L0439: 8, L0752: 8, S0360: 7, S0408: 7, S0222: 6, S0010: 6, H0494: 6, H0144: 6, H0657: 5, S0358: 5, H0393: 5, H0373: 5, H0551: 5, L0775: 5, L0666: 5, L0758: 5, H0542: 5, H0486: 4, H0013: 4, H0545: 4, H0046: 4, L0471: 4, H0687: 4,				

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HPDOP20	HPDOP20R	1824	3 - 512	3999							
HPDOS87	HPDOS87R	1825	3 - 272	4000							
HPDOU54	HPDOU54R	1826	3 - 287	4001			H0694: 48, L0777: 14, H0521: 11, L0794: 10, L0748: 10, L0747: 10, S0214: 9, S0360: 8,				

	S0003: 8, H0644: 8, L0439: 8; H0553: 7, L0662: 7, L0659: 7, L0588: 7, H0543: 7, H0038: 6, L0646: 6, H0436: 6, L0740: 6, H0341: 5, S0358: 5, H0580: 5, H0545: 5, H0494: 5, L0666: 5, L0665: 5, L0779: 5, L0599: 5, H0542: 5, H0656: 4, H0486: 4, H0046: 4, H0014: 4, H0551: 4, S0440: 4, H0529: 4, L0764: 4, L0809: 4, S0126: 4, S0406: 4, L0757: 4, S0436: 4, L0591: 4, L0485: 4, L0362: 4, H0423: 4, H0624: 3, S0376: 3, S0444: 3, S0408: 3, S0410: 3, H0581: 3, H0031: 3, H0090: 3, S0142: 3, L0770: 3, L0637: 3, L0772: 3, L0521: 3, L0766: 3, L0774: 3, L0663: 3, L0664: 3, T0068: 3, H0547: 3, H0539: 3, L0758: 3,				
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HPDOZ43	HPDOZ43R	1827	1 - 504	4002						
HPDPC65	HPDPC65RA	1828	2 - 178	4003						
HPDPC90	HPDPC90RA	1829	294 - 485	4004	Pro-6 to Gly-35, Arg-41 to Glu-47.					
HPDPH14	HPDPH14R	1830	94 - 291	4005						

HPDPK37	HPDPK37R	1831	1 - 420	4006					
HPDPN83	HPDPN83R	1832	365 - 3	4007				L0784: 2, H0428: 1, H0644: 1, S0366: 1, L0659: 1, L0636: 1, L0789: 1 and H0658: 1.	
HPDPP69	HPDPP69R	1833	260 - 463	4008				L0766: 2 and H0658: 2.	
HPDPQ10	HPDPQ10R	1834	369 - 581	4009	Gln-15 to Arg-20, Arg-35 to Ser-40.				
HPDPQ16	HPDPQ16R	1835	244 - 456	4010	Ile-5 to Lys-20.			L0794: 4, H0351: 3, H0083: 2, H0520: 2, H0658: 2, H0657: 1, H0341: 1, S0358: 1, L0586: 1, L0021: 1, T0110: 1, H0328: 1, H0040: 1, H0616: 1, H0625: 1, S0438: 1, S0440: 1, S0150: 1, H0130: 1, H0641: 1, L0800: 1, L0768: 1, L0803: 1, L0776: 1, L0657: 1, H0660: 1, S0328: 1, S0380: 1, S0406: 1, L0747: 1, H0343: 1, H0136: 1, H0423: 1, H0422: 1 and S0424: 1.	
HPDPR73	HPDPR73R	1836	80 - 463	4011	Asp-28 to His-35, Phe-43 to Trp-48, Asn-81 to Arg-86.				

HPDPS51	HPDPS51R	1837	2 - 214	4012		L0770: 4, L0771: 4, L0769: 3, L0757: 3, L0766: 2, L0779: 2, L0758: 2, H0170: 1, H0686: 1, S0476: 1, H0586: 1, L0637: 1, L0761: 1, L0803: 1, L0774: 1, L0776: 1, L0659: 1, L0809: 1, L0791: 1, H0658: 1, H0696: 1, S3012: 1, S0390: 1, L0747: 1, L0752: 1, L0753: 1, L0759: 1, S0434: 1, L0592: 1 and H0543: 1.		
HPDPS90	HPDPS90R	1838	2 - 421	4013				
HPDPT86	HPDPT86R	1839	378 - 533	4014	Asp-17 to Asn-30.	L0439: 4, H0658: 2, S0474: 1, L0794: 1, L0804: 1, L0791: 1, L0755: 1 and L0599: 1.		
HPDPU66	HPDPU66R	1840	2 - 262	4015				
HPDPX12	HPDPX12RP 00B	1841	2 - 418	4016				
HPDPY83	HPDPY83RP 00B	1842	148 - 405	4017	Lys-32 to Glu-39, Glu-43 to Ala-50, Ala-52 to Glu-80.			
HPDQC34	HPDQC34R	1843	1 - 693	4018				
HPDQG58	HPDQG58R	1844	2 - 235	4019				
HPDQH11	HPDQH11R	1845	2 - 334	4020				

HPDQH34	HPDQH34R	1846	105 - 308	4021	Gln-12 to Ser-19, Gln-40 to Gln-54.			
HPDQI50	HPDQI50R	1847	3 - 545	4022		H0052: 11, L0439: 10, L0775: 8, H0046: 7, L0748: 7, L0438: 6, L0750: 6, L0666: 5, L0599: 5, S0358: 4, H0620: 4, H0038: 4, H0413: 4, L0369: 4, L0769: 4, L0659: 4, L0665: 4, S0328: 4, L0758: 4, S0418: 3, S0442: 3, S0410: 3, H0619: 3, H0599: 3, L0662: 3, L0768: 3, L0774: 3, L0653: 3, H0660: 3, H0521: 3, L0731: 3, S0434: 3, L0601: 3, S0026: 3, S0424: 3, H0556: 2, T0002: 2, H0295: 2, H0583: 2, H0656: 2, S0376: 2, S0444: 2, H0580: 2, S0045: 2, S0046: 2, S0222: 2, H0592: 2, H0586: 2, N0009: 2, H0013: 2, H0575: 2, H0618: 2, H0318: 2, H0196: 2, H0012: 2, H0373: 2,		

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HPDQI55	HPDQI55R	1848	1 - 441	4023			H0519: 1, H0711: 1, H0659: 1, H0658: 1, H0666: 1, H0648: 1, H0672: 1, S0378: 1, L0602: 1, H0518: 1, H0522: 1, S0406: 1, H0555: 1, H0187: 1, S0027: 1, S0032: 1, L0742: 1, L0754: 1, L0747: 1, L0780: 1, L0757: 1, L0759: 1, S0031: 1, S0436: 1, L0592: 1, L0581: 1, L0608: 1, L0593: 1, L0362: 1, L0366: 1, H0667: 1, H0542: 1, H0422: 1 and H0352: 1.		
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HPDQI70	HPDQI70R	1849	2 - 646	4024						
HPDQL55	HPDQL55R	1850	256 - 711	4025	Pro-5 to Arg-25, Lys-32 to Ser-39, Pro-63 to Pro-79, Pro-115 to His-121.		L0774: 3, L0809: 2, H0483: 1, H0306: 1, H0599: 1, H0618: 1, H0083: 1, H0644: 1, H0617: 1, H0606: 1, H0087: 1, L0369: 1, L0763: 1, L0643: 1, L0662: 1, L0794: 1, L0804: 1, L0790: 1, L0665: 1, H0658: 1, H0696: 1, L0748: 1, L0780: 1 and L0757: 1.			
HPDQR20	HPDQR20R	1851	1 - 639	4026			L0777: 21, L0748: 16, L0439: 12, S0360: 9,			

1343

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HPDQR88	HPDQR88R	1852	2 - 550	4027	Gln-121 to Glu-136, Ala-153 to Ser-162, Ala-176 to Ser-182.					
HPDQS14	HPDQS14R	1853	113 - 325	4028						
HPDQS25	HPDQS25R	1854	25 - 273	4029						
HPDQS63	HPDQS63R	1855	25 - 258	4030	Phe-25 to Arg-34, Cys-51 to His-56, Glu-66 to Ser-75.					
HPDQS66	HPDQS66R	1856	134 - 322	4031			H0658: 2, L0745: 2, S0422: 1, H0648: 1 and L0731: 1.			
HPDQS76	HPDQS76R	1857	41 - 175	4032	His-2 to Trp-13, Lys-22 to Cys-31.		L0748: 9, L0774: 3, H0331: 2, H0632: 2, L0526: 2, H0658: 2, L0581: 2, H0574: 1 and L0790: 1.			
HPDQT32	HPDQT32R	1858	3 - 410	4033	Gly-17 to Glu-26, Lys-32 to Leu-37, Phe-46 to Thr-52,		H0542: 11, H0265: 7, H0543: 7, L0751: 5, S0424: 5, H0556: 4,			

Ile-103 to Gly-109, Lys-128 to Gln-136.	S0420: 4, S0010: 4, S0142: 4, L0659: 4, L0743: 4, L0747: 4, L0753: 4, H0657: 3, H0370: 3, H0618: 3, H0251: 3, H0545: 3, H0457: 3, H0620: 3, H0644: 3, H0560: 3, L0775: 3, L0663: 3, H0672: 3, S3012: 3, L0748: 3, S0212: 2, S0418: 2, S0360: 2, H0580: 2, S0222: 2, H0427: 2, H0253: 2, S0049: 2, H0327: 2, L0471: 2, H0617: 2, H0124: 2, S0366: 2, H0412: 2, L0667: 2, L0655: 2, H0690: 2, H0682: 2, H0658: 2, H0670: 2, H0660: 2, H0627: 2, S0027: 2, L0741: 2, L0740: 2, H0506: 2, H0170: 1, T0002: 1, H0686: 1, H0381: 1, H0484: 1, H0255: 1, H0663: 1, H0664: 1, H0638: 1, S0358: 1, H0675: 1, H0637: 1, S0468: 1,
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	H0208: 1, S0132: 1, S0278: 1, S0005: 1, H0497: 1, H0156: 1, L0021: 1, H0318: 1, H0052: 1, T0103: 1, H0544: 1, H0178: 1, H0172: 1, S0051: 1, H0083: 1, H0355: 1, H0510: 1, H0594: 1, H0188: 1, H0687: 1, H0622: 1, L0194: 1, L0483: 1, T0006: 1, H0033: 1, H0424: 1, H0031: 1, H0606: 1, H0166: 1, H0674: 1, H0591: 1, H0063: 1, H0087: 1, T0067: 1, L0351: 1, H0494: 1, H0561: 1, S0352: 1, S0440: 1, H0633: 1, H0647: 1, S0144: 1, S0344: 1, S0426: 1, H0529: 1, L0369: 1, L0372: 1, L0646: 1, L0800: 1, L0662: 1, L0768: 1, L0766: 1, L0650: 1, L0376: 1, L0776: 1, L0657: 1, L0636: 1, L0542: 1, L0783: 1, L0787: 1,	
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HPDQU81	HPDQU81R	1859	3 - 269	4034	Pro-25 to Thr-32.	L0666: 1, L0664: 1, L0665: 1, H0593: 1, H0684: 1, H0435: 1, H0659: 1, S0328: 1, S0330: 1, H0539: 1, S0378: 1, H0521: 1, H0555: 1, H0631: 1, L0744: 1, L0750: 1, L0777: 1, L0752: 1, L0757: 1, L0758: 1, L0596: 1, L0485: 1, L0593: 1, L0601: 1, S0011: 1, S0026: 1, S0192: 1 and H0352: 1. L0731: 4, L0775: 3, L0740: 3, H0170: 2, S0426: 2, L0770: 2, L0646: 2, L0766: 2, L0754: 2, H0344: 1, H0295: 1, H0393: 1, H0592: 1, H0318: 1, S6028: 1, H0038: 1, H0551: 1, L0642: 1, L0803: 1, L0774: 1, L0776: 1, L0663: 1, H0658: 1, S0332: 1, L0748: 1, L0777: 1, L0752: 1, L0757: 1, H0445: 1, S0424: 1 and S0384: 1.		
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HPDQV07	HPDQV07R	1860	2 - 421	4035					
HPDQV49	HPDQV49R	1861	246 - 401	4036					
HPDQW39	HPDQW39R	1862	68 - 550	4037	Asn-20 to Asp-25, Met-75 to Asp-81, Arg-144 to Thr-152.	AR104: 42, AR089: 22, AR060: 7, AR096: 4, AR055: 2, AR061: 1			
HPDQX13	HPDQX13R	1863	113 - 391	4038	Lys-1 to Leu-23, Ala-27 to Ser-34, Gly-36 to Phe-44.				
HPDQY23	HPDQY23R	1864	3 - 476	4039					
HPDQY65	HPDQY65R	1865	3 - 437	4040					
HPDQY88	HPDQY88R	1866	164 - 340	4041					
HPDQY95	HPDQY95R	1867	29 - 430	4042	Leu-11 to Cys-24, Leu-30 to Ser-36, Gly-93 to Glu-99.				
HPDQZ30	HPDQZ30R	1868	212 - 538	4043					
HPDQZ65	HPDQZ65R	1869	3 - 506	4044	Ser-120 to Tyr-126, Gly-137 to Arg-142, Ser-160 to Ser-168.				
HPDRA44	HPDRA44R	1870	1 - 525	4045					
HPDRA50	HPDRA50R	1871	1 - 384	4046					
HPDRF65	HPDRF65R	1872	230 - 559	4047	Glu-1 to Pro-9.				
HPDRG34	HPDRG34R	1873	79 - 270	4048		H0031: 2, H0135: 1, H0272: 1 and H0658: 1.			
HPDRG73	HPDRG73R	1874	2 - 481	4049	Ala-2 to Gly-8.				
HPDRM77	HPDRM77R	1875	1 - 177	4050					
HPDRM93	HPDRM93R	1876	3 - 302	4051					
HPDRO04	HPDRO04R	1877	2 - 307	4052	Gly-1 to Cys-24,				

HPDRO64	HPDRO64R	1878	249 - 509	4053	Cys-27 to Gly-43, Ala-46 to Trp-54, Ala-56 to Arg-68, Phe-83 to Arg-93. Thr-4 to His-17, Ser-21 to Gln-27.	S0132: 1, H0156: 1, H0575: 1, H0551: 1, H0658: 1, H0670: 1, H0555: 1 and L0439: 1.			
HPDRP36	HPDRP36R	1879	3 - 323	4054	Thr-57 to Phe-62, Gly-68 to Phe-73, His-86 to Tyr-92, Asp-97 to Phe-103.	L0766: 11, L0752: 7, L0754: 5, H0547: 4, S0358: 3, S0022: 3, L0756: 3, L0777: 3, H0625: 2, L0065: 2, S0438: 2, L0805: 2, L0776: 2, H0658: 2, S0328: 2, L0740: 2, L0745: 2, L0747: 2, L0750: 2, L0731: 2, L0601: 2, H0542: 2, H0543: 2, H0423: 2, S0424: 2, H0341: 1, H0661: 1, H0664: 1, H0306: 1, H0402: 1, H0638: 1, S0360: 1, H0580: 1, H0645: 1, H0443: 1, H0357: 1, H0592: 1, H0587: 1, H0574: 1, H0486: 1, H0270: 1, H0156: 1, T0048: 1, H0052: 1,			

								H0375: 1, H0687: 1, H0328: 1, H0169: 1, H0598: 1, H0551: 1, H0413: 1, T0042: 1, H0561: 1, S0422: 1, H0529: 1, L0520: 1, L0536: 1, L0772: 1, L0649: 1, L0803: 1, L0809: 1, L0666: 1, L0665: 1, H0144: 1, H0520: 1, H0519: 1, H0659: 1, H0651: 1, S0380: 1, H0696: 1, S0404: 1, S0406: 1, H0555: 1, L0744: 1, L0749: 1, L0753: 1, L0757: 1, L0759: 1, H0445: 1, S0434: 1, S0436: 1, L0599: 1, L0608: 1, L0594: 1 and H0422: 1.			
HPDRP41	HPDRP41R	1880	2 - 622	4055	Gly-8 to Val-14, Gln-20 to Asp-27, Met-79 to His-88, Arg-171 to Tyr-183, Pro-198 to Gly-204.						
HPDRQ66	HPDRQ66R	1881	27 - 290	4056		L0748: 3, H0556: 2, S0420: 2, S0045: 2, H0171: 1, H0265: 1, S0134: 1, H0657: 1,					

						H0341: 1, S0110: 1, H0661: 1, H0305: 1, H0580: 1, S0007: 1, S0046: 1, S0132: 1, S0278: 1, H0257: 1, H0069: 1, H0575: 1, T0048: 1, H0327: 1, H0252: 1, H0634: 1, H0412: 1, H0059: 1, H0633: 1, S0344: 1, H0529: 1, L0521: 1, L0806: 1, L0805: 1, H0435: 1, H0658: 1, H0672: 1, S0378: 1, L0747: 1, L0599: 1, S0026: 1 and H0542: 1.			
HPDRQ84	HPDRQ84R	1882	1 - 441	4057		Gly-6 to Ser-16, Glu-19 to Ala-33, Glu-44 to Lys-60, Ile-135 to Lys-147.			
HPDRR71	HPDRR71R	1883	1 - 543	4058		Ala-3 to Lys-11, Gly-112 to Glu-117.			
HPDRS43	HPDRS43R	1884	59 - 211	4059					
HPDRS46	HPDRS46R	1885	3 - 332	4060		Lys-94 to Ser-100.			
HPDRS87	HPDRS87R	1886	2 - 508	4061		Lys-32 to Glu-38, Ser-44 to Ser-55, Gln-67 to Gly-78, Glu-85 to Glu-90, Gly-108 to Ser-114, Phe-149 to Lys-158.			

HPDRT36	HPDRT36R	1887	59 - 214	4062	Lys-25 to Arg-36.	L0754: 19, L0731: 18, H0521: 15, L0777: 11, L0766: 8, L0755: 7, H0581: 6, L0659: 6, L0751: 6, H0486: 5, H0266: 5, H0553: 5, L0662: 5, L0663: 5, H0144: 5, L0439: 5, S0276: 5, H0638: 4, S0360: 4, H0644: 4, S0374: 4, S0330: 4, L0740: 4, L0756: 4, L0599: 4, L0362: 4, H0423: 4, H0657: 3, H0663: 3, H0580: 3, H0575: 3, S0003: 3, H0622: 3, H0124: 3, H0264: 3, H0623: 3, S0002: 3, L0520: 3, L0764: 3, L0775: 3, L0655: 3, L0519: 3, H0519: 3, H0659: 3, H0658: 3, S0328: 3, L0744: 3, L0747: 3, L0759: 3, S0026: 3, S0194: 3, H0624: 2, H0656: 2, H0341: 2, S0354: 2, S0408: 2, S0046: 2, H0619: 2, H0013: 2, H0250: 2,		
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				H0046: 1, L0157: 1, H0565: 1, H0024: 1, S0388: 1, H0267: 1, S0250: 1, S0214: 1, H0328: 1, H0030: 1, H0383: 1, H0673: 1, H0169: 1, H0316: 1, H0163: 1, H0090: 1, H0591: 1, H0040: 1, H0634: 1, H0488: 1, H0268: 1, H0412: 1, H0413: 1, H0056: 1, L0435: 1, H0494: 1, S0370: 1, H0646: 1, H0652: 1, S0344: 1, S0426: 1, L0371: 1, L0646: 1, L0800: 1, L0765: 1, L0648: 1, L0768: 1, L0389: 1, L0552: 1, L0774: 1, L0805: 1, L0653: 1, L0776: 1, L0658: 1, L0542: 1, L0809: 1, L0647: 1, H0701: 1, H0691: 1, S0126: 1, H0711: 1, H0683: 1, H0518: 1, S0454: 1, S0013: 1, H0479: 1, S0206: 1, L0743: 1, S0260: 1, H0343: 1,
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							L0584: 1, H0542: 1 and S0412: 1.			
HPDRT37	HPDRT37R	1888	3 - 560	4063	Ala-2 to Asp-9, Arg-18 to Gly-26, Asn-34 to Arg-43, Ala-52 to Asp-57.					
HPDRT38	HPDRT38R	1889	2 - 196	4064	Leu-48 to Lys-63.					
HPDRU03	HPDRU03R	1890	2 - 334	4065						
HPDRU37	HPDRU37R	1891	1 - 297	4066	Glu-11 to Pro-16, Arg-46 to Tyr-56, Asp-63 to Asp-69.					
HPDRU71	HPDRU71R	1892	458 - 703	4067						
HPDRV73	HPDRV73R	1893	1 - 528	4068	Glu-54 to Val-64, Leu-97 to Leu-105.					
HPDRV79	HPDRV79R	1894	300 - 596	4069	Ser-14 to Gly-20.		L0794: 6, L0758: 6, L0747: 5, L0770: 4, L0809: 4, H0620: 3, L0764: 3, H0658: 3, H0618: 2, H0012: 2, H0135: 2, L0769: 2, L0771: 2, L0773: 2, L0662: 2, L0803: 2, L0532: 2, S0126: 2, L0756: 2, S6024: 1, S0282: 1, H0638: 1, S0420: 1, L0717: 1, S0222: 1, H0441: 1, H0333: 1, L0622: 1, H0309: 1, H0597: 1, S0388: 1, S0051: 1,			

						T0010: 1, H0271: 1, H0687: 1, L0483: 1, H0604: 1, H0030: 1, H0181: 1, H0617: 1, H0412: 1, L0667: 1, L0646: 1, L0800: 1, L0643: 1, L0374: 1, L0364: 1, L0766: 1, L0649: 1, L0804: 1, L0523: 1, L0805: 1, L0655: 1, L0607: 1, L0657: 1, L0559: 1, L0659: 1, L0517: 1, L0529: 1, L0647: 1, L0787: 1, L0789: 1, L0666: 1, L0663: 1, L0665: 1, T0068: 1, L0438: 1, H0670: 1, H0627: 1, L0748: 1, L0439: 1, L0751: 1, L0777: 1, L0731: 1, L0757: 1, S0031: 1, L0605: 1, H0542: 1, H0543: 1, H0423: 1, L0697: 1 and S0462: 1.				
HPDRW09	HPDRW09R	1895	1 - 231	4070	Ala-31 to Gln-37, Lys-63 to Ser-69.					
HPDRW51	HPDRW51R	1896	192 - 587	4071						
HPDRY37	HPDRY37R	1897	2 - 322	4072	Pro-3 to Gly-8, Pro-70 to Pro-85.					

HPDRZ11	HPDRZ11R	1898	1 - 354	4073	Arg-13 to Gly-26, Asn-35 to Gln-40.			
HPDRZ29	HPDRZ29R	1899	3 - 509	4074	Val-30 to Trp-36, Ala-53 to Glu-67.	H0457: 9, L0766: 7, H0046: 5, H0650: 4, H0634: 3, L0659: 3, L0439: 3, H0716: 2, H0656: 2, H0254: 2, H0255: 2, H0333: 2, H0253: 2, H0081: 2, H0083: 2, H0628: 2, L0761: 2, L0800: 2, H0658: 2, L0750: 2, H0543: 2, H0422: 2, H0265: 1, H0657: 1, S0001: 1, S0420: 1, S0354: 1, S0376: 1, S0360: 1, H0722: 1, S0045: 1, H0550: 1, S0222: 1, H0614: 1, H0613: 1, H0069: 1, H0427: 1, H0575: 1, H0318: 1, H0581: 1, H0052: 1, H0327: 1, H0545: 1, H0041: 1, H0050: 1, H0354: 1, H0266: 1, H0179: 1, H0428: 1, H0622: 1, S0366: 1, S0036: 1, H0087: 1, H0264: 1, H0488: 1, L0435: 1,		

HPDVA01	HPDVA01R	1900	774 - 484	4075			H0022: 1, T0041: 1, H0560: 1, S0142: 1, S0426: 1, H0695: 1, H0529: 1, L0644: 1, L0764: 1, L0662: 1, L0649: 1, L0375: 1, L0805: 1, L0658: 1, L0809: 1, L0789: 1, L0792: 1, L0532: 1, L0663: 1, L0664: 1, L0665: 1, H0670: 1, H0672: 1, S0330: 1, H0539: 1, H0518: 1, H0521: 1, S0406: 1, H0555: 1, H0436: 1, S3012: 1, S3014: 1, S0027: 1, S0028: 1, L0744: 1, L0749: 1, L0756: 1, H0445: 1, S0434: 1, H0136: 1, S0276: 1 and H0542: 1.	
HPDVA06	HPDVA06R	1901	243 - 380	4076				
HPDVB37	HPDVB37R	1902	40 - 315	4077	Pro-2 to Lys-18.		L0748: 10, L0803: 3, L0439: 3, L0751: 3, L0626: 2, L0809: 2, L0790: 2, H0658: 2, L0744: 2, L0740: 2, L0754: 2, L0747: 2, L0756: 2, L0752: 2.	

							L0758: 2, H0170: 1, H0645: 1, H0351: 1, H0370: 1, H0497: 1, S0388: 1, T0067: 1, L0772: 1, L0643: 1, L0662: 1, L0794: 1, L0804: 1, L0774: 1, L0776: 1, L0666: 1, L0663: 1, L0665: 1, L0438: 1, S0044: 1, L0745: 1, L0749: 1, L0755: 1, L0757: 1 and S0031: 1.			
HPDVB70	HPDVB70R	1903	2 - 778	4078						
HPDVC28	HPDVC28R	1904	50 - 136	4079						
HPDVE55	HPDVE55R	1905	89 - 220	4080	Pro-8 to Pro-13.					
HPDVG06	HPDVG06R	1906	3 - 326	4081	Gln-22 to Val-33, Pro-37 to Gly-45, Ser-56 to Thr-65, Arg-82 to Thr-92.					
HPDVG67	HPDVG67R	1907	193 - 450	4082	Glu-79 to Gln-86.					
HPDVI25	HPDVI25R	1908	1 - 510	4083	Met-32 to Lys-37, Asp-44 to Ala-60.					
HPDVI95	HPDVI95R	1909	3 - 338	4084	Ala-32 to Thr-42, Lys-55 to Phe-60, Asp-85 to Gly-90, Arg-95 to Thr-100.					
HPDVK74	HPDVK74R	1910	3 - 425	4085	Ile-20 to Gly-29, Asn-82 to Thr-87.					

HPDVK79	HPDVK79R	1911	61 - 597	4086	Arg-8 to Lys-13, Gly-35 to Lys-42, Ala-48 to Lys-54.			
HPDVK93	HPDVK93R	1912	2 - 697	4087				
HPDVL36	HPDVL36R	1913	8 - 265	4088				
HPDVL45	HPDVL45R	1914	1 - 303	4089	Gly-1 to Phe-8, Pro-39 to Thr-61, Pro-66 to Phe-71, Arg-84 to Pro-89.	H0656: 3, S0218: 1, S0116: 1, S0356: 1, H0586: 1, H0333: 1, H0486: 1, H0427: 1, S0280: 1, H0545: 1, H0135: 1, H0087: 1, H0695: 1, H0547: 1, H0435: 1, H0658: 1, H0670: 1, H0672: 1, H0521: 1, L0439: 1, H0543: 1 and H0423: 1.		
HPDVL52	HPDVL52R	1915	60 - 350	4090	Ala-5 to Val-11, Leu-15 to Lys-23, Lys-39 to Ile-44.	H0656: 1, S0116: 1, S0376: 1, T0110: 1, T0042: 1, H0494: 1, L0649: 1, L0774: 1, L0665: 1, H0658: 1, L0748: 1, L0757: 1, H0667: 1 and H0543: 1.		
HPDVM61	HPDVM61R	1916	101 - 364	4091	Lys-13 to Leu-24, Arg-31 to Pro-54.			
HPDVM63	HPDVM63R	1917	1 - 576	4092	Ala-34 to Thr-46, Asp-59 to Lys-73, Ala-86 to Gln-94, Pro-99 to Gln-109, Glu-129 to Thr-141.			

HPDVM86	HPDVM86R	1918	2 - 406	4093	Asp-160 to Asn-168. Ala-33 to Cys-41, Thr-58 to Pro-66.	H0521: 43, S0278: 39, S0144: 30, S0142: 26, H0522: 18, S0344: 15, S0002: 14, H0638: 13, H0580: 11, H0641: 10, L0755: 10, L0599: 10, H0250: 9, H0271: 8, H0622: 8, H0575: 7, S0426: 7, L0775: 7, L0776: 7, L0751: 7, L0754: 7, H0125: 6, S0376: 6, S0132: 6, H0069: 6, H0090: 6, S0360: 5, H0486: 5, S0022: 5, L0731: 5, H0584: 4, H0657: 4, S0354: 4, S0358: 4, S0140: 4, H0581: 4, H0674: 4, L0764: 4, L0657: 4, L0665: 4, S0052: 4, S0428: 4, L0749: 4, L0752: 4, H0445: 4, L0591: 4, H0656: 3, L0785: 3, H0663: 3, H0370: 3, H0042: 3, H0004: 3, H0318: 3, H0031: 3, H0059: 3, L0769: 3,		
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HPDVO67	HPDVO67R	1919	1 - 465	4094	Glu-1 to Asp-6, Thr-11 to Glu-20, Val-61 to Gln-66.	H0214: 1, S0404: 1, H0576: 1, L0779: 1, L0780: 1, L0757: 1, L0593: 1, S0011: 1, H0665: 1, H0542: 1, H0423: 1 and S0458: 1.		
						AR039: 4, AR096: 4, AR052: 2, AR089: 2, AR061: 2, AR060: 2, AR104: 2, AR033: 1, AR055: 1, AR053: 0 L0666: 4, H0253: 2, H0622: 2, H0670: 2, L0743: 2, H0181: 1, L0372: 1, L0773: 1, L0767: 1, L0657: 1, L0665: 1, H0658: 1, L0751: 1, L0749: 1, L0779: 1, L0777: 1, L0758: 1 and L0593: 1.		
HPDVQ74	HPDVQ74R	1920	3 - 278	4095	Pro-1 to Ala-9, Arg-17 to Glu-25.			
HPDVQ82	HPDVQ82R	1921	29 - 421	4096		H0658: 2		
HPDVT30	HPDVT30R	1922	3 - 284	4097		L0754: 2, H0685: 1, T0010: 1, H0658: 1 and H0423: 1.		
HPDVT37	HPDVT37R	1923	1 - 333	4098				
HPDVU28	HPDVU28R	1924	91 - 693	4099	Val-1 to Glu-9, Pro-26 to Gly-31, Tyr-67 to Glu-74,			

HPDVU72	HPDVU72R	1925	3 - 548	4100	<p>Phe-107 to Glu-118, Lys-162 to Arg-173.</p> <p>Ser-1 to His-7, Thr-15 to Arg-29, His-31 to Val-42, Pro-52 to Pro-94, Glu-113 to Ala-131, Lys-161 to Arg-167.</p>	<p>L0777: 6, L0766: 5, L0749: 5, L0601: 4, L0758: 3, H0617: 2, L0769: 2, L0794: 2, L0805: 2, L0657: 2, L0665: 2, H0693: 2, S0028: 2, L0439: 2, L0751: 2, L0747: 2, L0779: 2, L0588: 2, S0114: 1, H0650: 1, H0657: 1, H0402: 1, H0638: 1, S0354: 1, S0360: 1, S0045: 1, S6026: 1, H0550: 1, H0156: 1, H0253: 1, H0421: 1, T0115: 1, H0150: 1, H0014: 1, S0051: 1, S6028: 1, H0688: 1, L0483: 1, H0181: 1, H0163: 1, H0090: 1, H0087: 1, H0560: 1, H0646: 1, S0210: 1, L0763: 1, L0638: 1, L0761: 1, L0784: 1, L0806: 1, L0776: 1, L0655: 1, L0659: 1, L0384: 1, L0789: 1, H0690: 1,</p>			
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							H0684: 1, H0658: 1, L0752: 1, L0755: 1, L0731: 1, L0757: 1, L0595: 1, S0276: 1 and H0506: 1.		
HPDVU88	HPDVU88R	1926	3 - 191	4101	Pro-6 to Ala-16.				
HPDVV78	HPDVV78R	1927	78 - 644	4102					
HPDWA35	HPDWA35R	1928	3 - 302	4103			H0658: 2		
HPDWA88	HPDWA88R	1929	3 - 560	4104					
HPDWB40	HPDWB40R	1930	175 - 306	4105	Arg-1 to Glu-8, Ala-31 to Trp-39.				
HPDWC30	HPDWC30R	1931	231 - 383	4106					
HPDWC75	HPDWC75R	1932	1 - 390	4107	Ala-3 to Ala-10, Pro-15 to Pro-23, Glu-79 to Ser-88, Pro-115 to Arg-122.				
HPDWD44	HPDWD44R	1933	214 - 471	4108			H0271: 13, H0436: 11, L0766: 8, H0581: 5, L0754: 5, S0242: 5, H0556: 4, H0635: 4, L0800: 4, L0662: 4, L0804: 4, L0655: 4, L0659: 4, L0789: 4, L0751: 4, L0757: 4, L0591: 4, S0356: 3, H0069: 3, H0416: 3, L0803: 3, L0747: 3, H0445: 3, H0423: 3, H0422: 3, H0395: 2,		

	S0134: 2, H0662: 2, H0402: 2, S0354: 2, S0046: 2, S0132: 2, H0587: 2, H0642: 2, H0014: 2, H0179: 2, H0644: 2, H0032: 2, H0090: 2, H0396: 2, H0633: 2, S0422: 2, L0375: 2, L0806: 2, L0607: 2, L0666: 2, L0663: 2, S0052: 2, S0053: 2, S0216: 2, H0521: 2, L0740: 2, L0779: 2, L0777: 2, L0758: 2, L0596: 2, L0599: 2, H0394: 1, S0114: 1, H0657: 1, H0656: 1, S0298: 1, H0306: 1, S0376: 1, H0411: 1, H0607: 1, H0632: 1, H0257: 1, H0492: 1, H0486: 1, L0021: 1, H0318: 1, H0196: 1, H0545: 1, H0457: 1, H0083: 1, S6028: 1, L0483: 1, H0591: 1, H0634: 1, H0623: 1, H0560: 1, H0641: 1, S0344: 1, L0770: 1, L0372: 1,	
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								L0646: 1, L0794: 1, L0774: 1, L0653: 1, L0776: 1, L0657: 1, L0783: 1, L0664: 1, L0665: 1, S0428: 1, S0374: 1, H0689: 1, H0690: 1, H0658: 1, H0672: 1, S0378: 1, H0518: 1, H0576: 1, H0478: 1, S3014: 1, L0749: 1, H0543: 1 and S0458: 1.			
HPDWD67	HPDWD67R	1934	220 - 2	4109	Asp-65 to Gly-73.			L0588: 18, S0408: 16, S0007: 12, S0444: 11, H0677: 11, H0648: 10, L0769: 9, H0670: 9, S0328: 9, H0651: 8, S0406: 8, H0657: 7, H0341: 7, H0402: 7, H0659: 7, L0748: 7, H0543: 7, T0049: 6, H0251: 6, L0775: 6, L0742: 6, H0422: 6, L0471: 5, H0617: 5, S0440: 5, L0517: 5, S0374: 5, H0658: 5, H0696: 5, L0749: 5, H0423: 5, H0295: 4, S0114: 4, S0134: 4,			
HPDWD69	HPDWD69R	1935	3 - 353	4110	Ser-1 to His-19, Val-86 to Pro-105, Pro-110 to Met-117.						

				H0656: 4, H0639: 4, H0687: 4, H0606: 4, L0767: 4, L0518: 4, L5286: 4, H0682: 4, L0752: 4, L0759: 4, L0605: 4, L0361: 4, H0685: 3, H0294: 3, H0305: 3, S0356: 3, S0358: 3, S0360: 3, H0722: 3, S0046: 3, L0622: 3, H0486: 3, T0109: 3, T0003: 3, T0067: 3, H0412: 3, S0438: 3, S0422: 3, L0520: 3, L0371: 3, L0770: 3, L0768: 3, L0766: 3, L5574: 3, L0376: 3, L0776: 3, S0126: 3, H0689: 3, L0740: 3, L0758: 3, H0542: 3, H0352: 3, T0002: 2, H0159: 2, S0040: 2, H0713: 2, H0716: 2, S0218: 2, L0785: 2, H0661: 2, H0638: 2, H0125: 2, S0410: 2, H0351: 2, H0586: 2, H0587: 2, H0333: 2, H0492: 2, L0623: 2, S0182: 2,		
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	T0039: 1, T0060: 1, H0706: 1, S0010: 1, T0048: 1, H0318: 1, H0309: 1, H0596: 1, T0115: 1, L0040: 1, H0231: 1, H0546: 1, H0545: 1, H0009: 1, H0057: 1, H0018: 1, S0051: 1, H0510: 1, H0375: 1, H0109: 1, S0022: 1, H0328: 1, H0688: 1, H0039: 1, T0023: 1, T0006: 1, H0424: 1, H0628: 1, H0673: 1, H0708: 1, S0366: 1, S0036: 1, H0135: 1, H0040: 1, H0634: 1, H0063: 1, H0087: 1, H0116: 1, H0264: 1, H0413: 1, H0100: 1, L0564: 1, H0494: 1, H0561: 1, H0641: 1, H0646: 1, S0144: 1, S0344: 1, L0506: 1, L0761: 1, L0646: 1, L0771: 1, L0648: 1, L0521: 1, L0662: 1, L0387: 1, L0375: 1, L0806: 1, L0654: 1, L0661: 1,					
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							L0807: 1, L0542: 1, L0519: 1, L0530: 1, L0790: 1, L0663: 1, H0144: 1, H0724: 1, H0660: 1, H0666: 1, H0672: 1, H0518: 1, H0521: 1, S0190: 1, H0134: 1, H0187: 1, H0436: 1, S3014: 1, S0028: 1, L0751: 1, L0779: 1, L0757: 1, S0031: 1, H0445: 1, S0436: 1, H0668: 1, S0026: 1, S0276: 1 and S0424: 1.			
HPDWD81	HPDWD81R	1936	1 - 378	4111	Asn-60 to Gly-72, Pro-83 to Trp-114, Ser-117 to Arg-126.					
HPDWE11	HPDWE11R	1937	2 - 121	4112	Arg-1 to Gln-9.					
HPDWE64	HPDWE64R	1938	248 - 559	4113			H0575: 2, L0002: 1, S0336: 1, H0487: 1, L0762: 1, L0637: 1, L0805: 1, L0659: 1, H0658: 1, L0777: 1 and L0731: 1.			
HPDWF93	HPDWF93R	1939	1 - 507	4114	Pro-3 to Pro-12.					
HPDWE51	HPDWE51R	1940	169 - 342	4115	Phe-1 to Cys-13, Gly-28 to Ser-35.		H0038: 5, H0616: 3, L0752: 3, S0418: 2, H0620: 2, H0547: 2, L0602: 2, H0521: 2,			

						L0751: 2, S0212: 1, S0282: 1, H0638: 1, S0358: 1, S0007: 1, H0261: 1, H0575: 1, S0346: 1, H0596: 1, L0471: 1, L0163: 1, H0071: 1, H0510: 1, S0003: 1, H0488: 1, S0038: 1, H0509: 1, H0649: 1, S0144: 1, L0803: 1, S0374: 1, H0519: 1, S0126: 1, H0658: 1, H0518: 1, S0013: 1, S0044: 1, L0743: 1, L0744: 1, L0748: 1, L0759: 1, L0599: 1 and S0424: 1.			
HPDWL56	HPDWL56R	1941	2 - 388	4116					
HPDWL70	HPDWL70R	1942	174 - 308	4117					
HPDWN46	HPDWN46R	1943	1 - 585	4118	Arg-21 to Gly-32, Pro-63 to Ser-79, Thr-92 to Pro-100, Glu-107 to Glu-126, Glu-133 to Ser-146, Ser-148 to Thr-157.	H0556: 30, H0659: 9, L0439: 9, S0406: 8, H0494: 7, S0360: 6, L0771: 6, H0634: 5, S0206: 5, L0777: 5, H0265: 4, H0657: 4, S0328: 4, S0152: 4, S0146: 4, L0748: 4, L0751: 4, L0749: 4, H0423: 4, S0040: 3, H0497: 3, H0623: 3.			

	H0529: 3, L0761: 3, L0665: 3, H0144: 3, H0555: 3, S0026: 3, H0656: 2, H0341: 2, S0212: 2, S0418: 2, S0356: 2, H0675: 2, S0046: 2, H0411: 2, H0586: 2, H0581: 2, H0615: 2, H0553: 2, H0591: 2, S0440: 2, S0422: 2, L0772: 2, L0438: 2, H0711: 2, H0521: 2, S0404: 2, S3014: 2, L0743: 2, L0740: 2, H0170: 1, H0171: 1, H0159: 1, H0686: 1, S0342: 1, H0294: 1, S0114: 1, T0049: 1, S0116: 1, H0661: 1, H0458: 1, S0420: 1, S0376: 1, S0444: 1, H0437: 1, S6022: 1, H0550: 1, H0362: 1, H0642: 1, H0574: 1, H0559: 1, S0280: 1, H0590: 1, H0004: 1, H0363: 1, H0263: 1, H0596: 1, H0081: 1, H0014: 1, H0688: 1, H0628: 1,
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									L0055: 1, H0673: 1, H0068: 1, H0551: 1, T0069: 1, L0435: 1, H0625: 1, S0002: 1, L0369: 1, L0637: 1, L0764: 1, L0774: 1, L0775: 1, L0375: 1, L0378: 1, L0806: 1, L0805: 1, L0655: 1, L0606: 1, L0657: 1, L0783: 1, L0382: 1, L0792: 1, H0701: 1, S0374: 1, H0519: 1, S0126: 1, H0658: 1, H0670: 1, H0648: 1, S0390: 1, S0037: 1, L0744: 1, L0747: 1, L0779: 1, L0731: 1, L0759: 1, H0445: 1, S0434: 1, L0584: 1, H0667: 1, S0194: 1, H0542: 1, H0543: 1, H0422: 1 and S0424: 1.				
HPDWN65	HPDWN65R	1944	1 - 246	4119									
HPDWN69	HPDWN69R	1945	2 - 607	4120	Gly-2 to Pro-9, Ser-24 to Thr-33.								
HPDWO08	HPDWO08R	1946	351 - 704	4121		L0766: 5, H0551: 3, L0769: 3, L0639: 3, H0327: 2, S0002: 2, L0764: 2, L0659: 2,							

									L0663: 2, L0777: 2, S0356: 1, S0360: 1, S0410: 1, L0717: 1, H0261: 1, H0550: 1, S0222: 1, T0109: 1, H0575: 1, T0048: 1, H0052: 1, S0051: 1, L0455: 1, H0124: 1, H0135: 1, H0063: 1, H0087: 1, L0763: 1, L0770: 1, L0796: 1, L0761: 1, L0643: 1, L0374: 1, L0771: 1, L0626: 1, L0635: 1, L0542: 1, L0809: 1, L0665: 1, L0565: 1, H0547: 1, H0658: 1, H0522: 1, L0756: 1, L0758: 1 and L0366: 1.				
HPDWO29	HPDWO29R	1947	386 - 568	4122	His-1 to Gly-13.								
HPDWO50	HPDWO50R	1948	27 - 455	4123	Arg-90 to Lys-95, Pro-121 to Trp-129.								
HPDWO61	HPDWO61R	1949	2 - 358	4124									
HPDWO82	HPDWO82R	1950	1 - 342	4125	Ala-3 to Glu-8.				L0770: 12, H0657: 10, H0659: 9, L0776: 8, H0648: 8, L0755: 8, L0774: 7, S0410: 6, H0494: 6, L0769: 6, L0750: 6, S0408: 5, S0440: 5, L0775: 5,				

	S0376: 4, S0360: 4, L0748: 4, L0777: 4, L0752: 4, L0759: 4, H0341: 3, S0358: 3, H0616: 3, L0766: 3, L0740: 3, L0747: 3, L0731: 3, L0758: 3, S0026: 3, H0170: 2, H0556: 2, H0685: 2, H0656: 2, S0420: 2, S0444: 2, T0109: 2, H0156: 2, H0545: 2, L0471: 2, H0031: 2, H0040: 2, H0560: 2, L0065: 2, S0438: 2, L0763: 2, L0772: 2, L0764: 2, L0518: 2, L0783: 2, H0144: 2, S0374: 2, H0520: 2, H0658: 2, H0670: 2, L0753: 2, H0445: 2, S0434: 2, H0665: 2, S0194: 2, S0134: 1, S0116: 1, H0663: 1, L0481: 1, H0638: 1, H0125: 1, S0442: 1, H0351: 1, H0369: 1, H0550: 1, H0431: 1, H0331: 1, H0069: 1, S0346: 1, T0048: 1,				
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HPDWS61	HPDWS61R	1951	73 - 321	4126	Asp-15 to Val-20.	S0182: 1, S0049: 1, H0563: 1, H0081: 1, H0620: 1, H0014: 1, H0373: 1, H0083: 1, H0375: 1, H0428: 1, H0708: 1, H0634: 1, H0412: 1, H0413: 1, L0475: 1, H0386: 1, L0598: 1, H0529: 1, L0520: 1, L0762: 1, L0371: 1, L0638: 1, L0373: 1, L0646: 1, L0773: 1, L0521: 1, L0662: 1, L0805: 1, L0655: 1, L0517: 1, L0540: 1, L0542: 1, L0526: 1, L0809: 1, L0545: 1, L0791: 1, L0663: 1, L0665: 1, H0691: 1, H0547: 1, H0690: 1, H0435: 1, H0660: 1, H0651: 1, S0380: 1, S0406: 1, L0749: 1, L0780: 1, H0668: 1, H0653: 1, S0242: 1, S0276: 1, H0542: 1, H0422: 1 and H0506: 1.		
HPDWS61	HPDWS61R	1951	73 - 321	4126	Asp-15 to Val-20.	H0617: 8, S0404: 8, H0484: 7, H0550: 7.		

L0758: 5, H0606: 4, H0658: 4, H0696: 4, S0276: 4, H0295: 3, S0280: 3, H0150: 3, H0188: 3, H0163: 3, L0769: 3, S0408: 2, L0622: 2, L0623: 2, T0060: 2, T0006: 2, H0181: 2, H0673: 2, H0494: 2, L0764: 2, L0775: 2, L0776: 2, L0514: 2, L0510: 2, L0511: 2, L0512: 2, L0540: 2, L0783: 2, L0809: 2, L0528: 2, H0683: 2, H0694: 2, L0744: 2, L0747: 2, S0031: 2, S6024: 1, H0294: 1, H0381: 1, H0483: 1, H0664: 1, H0662: 1, S0356: 1, S0442: 1, S0358: 1, S0376: 1, H0411: 1, S6022: 1, H0586: 1, H0333: 1, H0036: 1, H0590: 1, H0309: 1, H0044: 1, H0121: 1, H0081: 1, H0014: 1, S0388: 1, S0051: 1, H0252: 1, H0622: 1,	
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							L0483: 1, H0033: 1, H0111: 1, H0032: 1, H0166: 1, S0438: 1, L0762: 1, L0504: 1, L0381: 1, L0803: 1, L0375: 1, L0376: 1, L0509: 1, L0515: 1, L0518: 1, L0782: 1, L0544: 1, L0541: 1, L0543: 1, H0693: 1, S0126: 1, H0651: 1, L0743: 1, L0751: 1, L0777: 1, L0753: 1, H0445: 1, H0667: 1, S0194: 1 and S0398: 1.		
HPDWT55	HPDWT55R	1952	3 - 503	4127	Ala-37 to Ser-42, Gly-127 to Thr-134.		L0774: 3, H0658: 3, L0803: 2, L0439: 2, H0619: 1, H0586: 1, H0309: 1, S0366: 1, L0659: 1 and S0052: 1.		
HPDWT56	HPDWT56R	1953	12 - 746	4128	Arg-4 to Gly-17, Pro-39 to Lys-46, His-96 to Arg-102.				
HPDWU47	HPDWU47R	1954	1 - 705	4129					
HPDWU55	HPDWU55R	1955	1 - 702	4130	Leu-4 to Phe-9, Gly-29 to Glu-39.		L0748: 18, L0755: 7, H0251: 6, L0777: 6, H0658: 4, L0754: 4, L0779: 4, S0360: 3, S0276: 3, H0674: 2, L0767: 2, L0766: 2,		

HPDWU60	HPDWU60R	1956	2 - 568	4131	Pro-50 to Trip-55:	L0775: 2, L0809: 2, H0689: 2, L0757: 2, S0358: 1, S0046: 1, H0013: 1, H0427: 1, H0546: 1, H0046: 1, H0123: 1, H0252: 1, H0031: 1, H0617: 1, L0769: 1, L0773: 1, L0662: 1, L0649: 1, L0774: 1, L0375: 1, L0776: 1, L0636: 1, L0783: 1, L0382: 1, L0666: 1, L0663: 1, L0665: 1, H0144: 1, H0670: 1, S0328: 1, H0696: 1, S0027: 1, L0758: 1, L0759: 1 and S0434: 1.		
						L0766: 7, L0748: 6, L0771: 5, S0422: 3, H0519: 3, L0749: 3, L0756: 3, H0735: 2, H0641: 2, H0529: 2, L0659: 2, S0374: 2, L0758: 2, H0484: 1, S0442: 1, S0358: 1, S0410: 1, S0007: 1, H0632: 1, L0483: 1, H0606: 1, H0268: 1, S0150: 1, L0763: 1,		

								L0637: 1, L0764: 1, L0768: 1, L0774: 1, L0653: 1, L0809: 1, L0666: 1, H0144: 1, L0438: 1, H0520: 1, H0547: 1, H0658: 1, S0328: 1, H0539: 1, S0406: 1, S0027: 1, L0744: 1, L0751: 1, L0754: 1, L0750: 1, L0777: 1, L0592: 1, L0608: 1, L0593: 1, H0543: 1 and H0422: 1.			
HPDWU63	HPDWU63R	1957	2 - 370	4132	Ala-51 to Tyr-56, Ala-92 to Ser-101, Ser-118 to Ile-123.						
HPFMP90	HPFMP90R	1958	38 - 163	4133	Asp-14 to Ala-19.						
								L0740: 3, L0758: 3, S0242: 3, L0598: 2, L0766: 2, L0803: 2, H0435: 2, H0648: 2, L0748: 2, L0756: 2, L0731: 2, L0757: 2, H0170: 1, S0300: 1, H0431: 1, H0046: 1, H0687: 1, S0003: 1, H0674: 1, H0616: 1, T0067: 1, UNKWN: 1, L0770: 1, L0637: 1, L0373: 1, L0765: 1, L0794: 1, L0804: 1,			

							L0775: 1, L0784: 1, L0805: 1, L0776: 1, L0666: 1, L0664: 1, L0665: 1, L0438: 1, H0689: 1, L0439: 1, L0754: 1, L0750: 1, L0759: 1 and L0480: 1.			
HPIAL09	HPIAL09R	1959	209 - 394	4134			Phe-5 to Leu-11, Ser-20 to Arg-45.			
HSAMY44	HSAMY44R	1960	3 - 182	4135			Gly-4 to Asn-9.			
HSAYW59	HSAYW59R	1961	2 - 364	4136			Pro-11 to Lys-16, Val-18 to Arg-45, Asn-56 to Glu-67.	H0255: 2, S0114: 1, L0510: 1 and S0216: 1.		
HSCPJ17	HSCPJ17R	1962	2 - 655	4137						
HSDIA22	HSDIA22R	1963	114 - 212	4138						
HSDII65	HSDII65R	1964	239 - 412	4139				L0809: 5, L0666: 4, L0747: 3, L0750: 3, L0764: 2, L0803: 2, L0774: 2, L0651: 2, L0663: 2, L0664: 2, L0748: 2, L0756: 2, L0779: 2, L0755: 2, H0669: 1, H0392: 1, H0600: 1, S0346: 1, H0494: 1, H0646: 1, L0763: 1, L0371: 1, L0372: 1, L0775: 1, L0659: 1, L0518: 1, L0788: 1, L0665: 1, S0330: 1, S0392: 1,		

							L0749: 1, L0752: 1, L0757: 1, S0260: 1, L0596: 1, L0591: 1 and L0608: 1.			
HSDIX73	HSDIX73R	1965	2 - 187	4140						
HSDJI25	HSDJI25R	1966	2 - 169	4141	Ser-20 to Ser-31.					
HSDZE12	HSDZE12R	1967	40 - 141	4142	Trp-1 to Ala-10.		AR033: 4, AR089: 3, AR096: 3, AR060: 3, AR061: 2, AR053: 2, AR055: 1, AR039: 0, AR052: 0 L0774: 3, L0752: 3, L0592: 3, H0625: 2, L0662: 2, L0747: 2, L0777: 2, H0580: 1, L0717: 1, H0455: 1, S0280: 1, H0251: 1, H0633: 1, L0773: 1, L0768: 1, L0794: 1, L0803: 1, L0775: 1, L0653: 1, L0776: 1, L0661: 1, L0659: 1, L0526: 1, L0809: 1, L0665: 1, H0658: 1, H0696: 1, L0755: 1, L0731: 1, L0757: 1, L0759: 1 and H0352: 1.			
HSDZJ21	HSDZJ21R	1968	40 - 180	4143	Lys-18 to Lys-30.					
HSIFF84	HSIFF84R	1969	3 - 80	4144	Pro-14 to Lys-26.					
HSKJR50	HSKJR50R	1970	2 - 400	4145	Leu-117 to Trp-123.					

HSLHT27	HSLHT27R	1971	2 - 196	4146	Asn-45 to Ser-54.	H0596: 5, S0388: 4, H0598: 4, H0595: 4, S0412: 4, S0282: 3, S0280: 2, H0594: 2, H0366: 2, H0542: 2, H0395: 1, H0589: 1, S0356: 1, H0411: 1, H0592: 1, H0559: 1, H0427: 1, S0050: 1, H0373: 1, S0344: 1, H0436: 1, S0260: 1, S0194: 1 and H0506: 1.		
HSODB16	HSODB16R	1972	1 - 174	4147				
HSPSB24	HSPSB24R	1973	1 - 612	4148	Glu-77 to Arg-82, Pro-132 to Met-139.			
HSPSB70	HSPSB70R	1974	3 - 539	4149	Ile-1 to Ala-11, Asp-67 to Leu-78, Asn-81 to Ser-90, Pro-96 to Glu-110, Ala-164 to Ala-171, Gln-173 to Lys-179.			
HSPSB74	HSPSB74R	1975	1 - 162	4150	Ala-1 to Cys-21, Trp-23 to Ser-33.			
HSPSB80	HSPSB80R	1976	2 - 631	4151	Leu-43 to Thr-58.			
HSPSC30	HSPSC30R	1977	1 - 342	4152	Ser-41 to Ile-50, Gln-55 to Glu-65, Cys-69 to Asp-78.			
HSPSE86	HSPSE86R	1978	3 - 293	4153		L0755: 5, L0748: 4, H0616: 3, L0769: 3, L0752: 3, L0731: 3, L0757: 3, S0356: 2, S0408: 2, S0046: 2,		

	L0770: 2, L0771: 2, L0776: 2, L0526: 2, L0747: 2, L0750: 2, L0756: 2, L0758: 2, L0759: 2, L0588: 2, H0170: 1, L0459: 1, H0484: 1, S0358: 1, S0360: 1, H0637: 1, S0045: 1, S0132: 1, H0393: 1, S0278: 1, T0039: 1, H0427: 1, H0318: 1, S0049: 1, H0009: 1, H0081: 1, T0003: 1, H0051: 1, H0083: 1, S0003: 1, H0622: 1, H0708: 1, H0316: 1, H0038: 1, H0063: 1, H0412: 1, S0038: 1, S0150: 1, H0529: 1, L0762: 1, L0763: 1, L0646: 1, L0644: 1, L0768: 1, L0766: 1, L0774: 1, L0775: 1, L0661: 1, L0657: 1, L0782: 1, L0788: 1, L0666: 1, L0665: 1, H0683: 1, H0660: 1, S0378: 1, S0406: 1, L0777: 1, H0445: 1 and H0542: 1.
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HSPSG03	HSPSG03R	1979	3 - 191	4154	Leu-41 to Asp-48.	H0124: 19, H0052: 10, L0751: 7, L0747: 7, H0255: 6, H0441: 6, H0556: 5, S0222: 5, H0265: 4, S0360: 4, H0620: 4, L0655: 4, H0144: 4, L0439: 4, L0596: 4, L0601: 4, S0132: 3, H0575: 3, H0123: 3, H0012: 3, H0024: 3, H0617: 3, H0087: 3, H0529: 3, L0764: 3, L0662: 3, L0766: 3, L0663: 3, L0565: 3, L0438: 3, H0660: 3, L0743: 3, L0740: 3, H0445: 3, H0218: 2, H0585: 2, S0418: 2, S0444: 2, S0408: 2, H0208: 2, S0278: 2, H0261: 2, H0333: 2, H0706: 2, H0581: 2, S0049: 2, H0009: 2, L0471: 2, S0051: 2, T0010: 2, H0083: 2, H0594: 2, T0006: 2, H0628: 2, H0038: 2, S0440: 2, S0142: 2, S0344: 2, L5565: 2, L5566: 2,		
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HSPSG13	HSPSG13R	1980	2 - 784	4155						
HSPSG42	HSPSG42R	1981	3 - 596	4156	Glu-6 to Thr-11, His-31 to Asn-36, Thr-68 to Ile-76, Met-80 to Arg-89, Glu-123 to Gln-132, Arg-140 to Leu-147.					
HSPSG50	HSPSG50R	1982	123 - 608	4157	Glu-1 to Ile-6.					
HSPSG89	HSPSG89R	1983	94 - 651	4158	Pro-36 to Lys-44, Ile-46 to Ser-52, Val-82 to Gln-89, Gly-99 to Ala-104, Tyr-165 to Leu-171.					
HSPSH39	HSPSH39R	1984	11 - 793	4159						
HSPSH41	HSPSH41R	1985	3 - 431	4160						
HSPSH49	HSPSH49R	1986	3 - 539	4161						
HSPSI65	HSPSI65R	1987	3 - 734	4162	Asp-7 to Lys-15, His-142 to Glu-156,					

HSPSJ71	HSPSJ71R	1988	2 - 310	4163	Glu-181 to Phe-190.	H0124: 19, H0052: 10, L0751: 7, L0747: 7, H0255: 6, H0441: 6, H0556: 5, S0222: 5, H0265: 4, S0360: 4, H0620: 4, L0655: 4, H0144: 4, L0439: 4, L0596: 4, L0601: 4, S0132: 3, H0575: 3, H0123: 3, H0012: 3, H0024: 3, H0617: 3, H0087: 3, H0529: 3, L0764: 3, L0662: 3, L0766: 3, L0663: 3, L0565: 3, L0438: 3, H0660: 3, L0743: 3, L0740: 3, H0445: 3, H0218: 2, H0585: 2, S0418: 2, S0444: 2, S0408: 2, H0208: 2, S0278: 2, H0261: 2, H0333: 2, H0706: 2, H0581: 2, S0049: 2, H0009: 2, L0471: 2, S0051: 2, T0010: 2, H0083: 2, H0594: 2, T0006: 2, H0628: 2, H0038: 2, S0440: 2, S0142: 2, S0344: 2,		
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									H0542: 1, H0422: 1, S0456: 1 and H0352: 1.			
HSPSQ22	HSPSQ22R	1990	1 - 339	4165	Pro-6 to Gly-13, Pro-23 to Lys-32, Lys-94 to Ala-112.							
HSPSQ57	HSPSQ57R	1991	1 - 327	4166	Glu-17 to Asp-32.							
HSPSY67	HSPSY67R	1992	2 - 442	4167					H0683: 242, S0358: 3, L0745: 3, H0656: 2, H0484: 2, S0354: 2, H0370: 2, H0427: 2, T0010: 2, H0039: 2, H0521: 2, S0001: 1, H0619: 1, H0592: 1, H0042: 1, H0618: 1, H0327: 1, H0024: 1, H0266: 1, H0288: 1, H0135: 1, H0551: 1, H0623: 1, H0130: 1, S0210: 1, L0774: 1, L0654: 1, L0438: 1, H0593: 1, H0539: 1, L0439: 1, H0707: 1, H0422: 1 and H0293: 1.			
HSPSZ69	HSPSZ69R	1993	2 - 406	4168								
HSPTA57	HSPTA57R	1994	244 - 438	4169								
HSPTN57	HSPTN57R	1995	2 - 61	4170	Ala-1 to Lys-9, Val-11 to Trp-17.							
HSSDM17	HSSDM17R	1996	46 - 210	4171								
HSWBF04	HSWBF04R	1997	36 - 302	4172	Ser-1 to Thr-8,							

HSWBP42	HSWBP42R	1998	188 - 364	4173	Glu-17 to Ala-32, Arg-39 to Trp-47. Met-9 to Arg-14, Leu-23 to Lys-29, Lys-50 to Asn-56.			
HSXEM65	HSXEM65R	1999	84 - 308	4174	Ser-7 to Gly-12, Pro-23 to Pro-40, Ala-49 to Val-54. L0803: 10, L0794: 4, L0779: 4, L0789: 2, H0648: 2, S0442: 1, S0045: 1, S0036: 1, L0520: 1, L0763: 1, L0769: 1, L0800: 1, L0644: 1, L0764: 1, L0773: 1, L0767: 1, L0804: 1, L0774: 1, L0805: 1, L0517: 1, H0659: 1, L0777: 1 and L0758: 1.			
HTGAR42	HTGAR42R	2000	136 - 297	4175	Ser-4 to Thr-10, Leu-42 to Pro-51. H0615: 2 and S0134: 1.			
HTLCU84	HTLCU84R	2001	131 - 406	4176	Asp-55 to Val-63, Cys-80 to Arg-92.			
HTSHG06	HTSHG06R	2002	107 - 295	4177				
HTTDP76	HTTDP76R	2003	169 - 423	4178	Pro-8 to Trp-14, Arg-20 to Ser-27, Glu-52 to Glu-60.			
HUFCQ37	HUFCQ37R	2004	94 - 366	4179	Pro-26 to Gly-39, Pro-68 to Arg-75. L0439: 15, H0052: 11, S0007: 9, L0438: 6, L0731: 6, L0779: 5, L0754: 4, H0550: 3, L0769: 3, S0126: 3.			

	L0743: 3, H0194: 2, H0687: 2, H0623: 2, L0768: 2, L0776: 2, L0659: 2, L0666: 2, L0663: 2, H0689: 2, S0330: 2, L0748: 2, L0786: 2, L0777: 2, L0752: 2, L0758: 2, L0608: 2, H0352: 2, H0662: 1, S0356: 1, S0354: 1, S0444: 1, S0045: 1, S0476: 1, H0441: 1, H0431: 1, H0333: 1, H0642: 1, H0575: 1, H0590: 1, T0048: 1, H0150: 1, H0024: 1, S0050: 1, S0388: 1, H0252: 1, H0039: 1, H0135: 1, H0038: 1, H0264: 1, H0494: 1, L0770: 1, L0372: 1, L0646: 1, L0521: 1, L0794: 1, L0803: 1, L0775: 1, L0653: 1, L0657: 1, L0809: 1, L0792: 1, L0664: 1, H0144: 1, L0352: 1, H0519: 1, H0593: 1, H0658: 1, H0672: 1, H0539: 1,				
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							S0406: 1, L0751: 1, L0749: 1, L0756: 1, L0753: 1 and H0506: 1.			
HULAP70	HULAP70R	2005	2 - 349	4180	Arg-8 to Arg-28.					
HUSGA11	HUSGA11R	2006	19 - 390	4181	Arg-11 to Arg-18, Ser-42 to Arg-52, Met-62 to Pro-73, Pro-102 to Gly-115.					
HUSIL88	HUSIL88R	2007	187 - 288	4182						
HUUCH08	HUUCH08R A	2008	351 - 620	4183						
HUVFA39	HUVFA39R	2009	1 - 462	4184	Arg-2 to Gly-12, Arg-28 to Gly-41, Gly-48 to Val-68, Lys-94 to Arg-118.					
HVCAA31	HVCAA31R	2010	94 - 618	4185	Met-4 to Thr-22, Asp-45 to Gly-50, Gly-65 to Asp-70, Lys-96 to Asp-104, Ile-121 to Leu-126, Met-133 to Glu-144, Ala-149 to Asn-156.					
HVCAA37	HVCAA37R	2011	208 - 717	4186	Ile-36 to Glu-41, Glu-55 to Lys-63, Lys-68 to Gln-81, Pro-84 to Lys-90, Pro-108 to Ser-119.					
HVCAA68	HVCAA68R	2012	2 - 373	4187	Pro-22 to Pro-28, Glu-109 to Arg-118.					

[illegible]

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HVCAE01	HVCAE01R	2023	49 - 663	4198	Tyr-44 to Asp-49, Pro-132 to Leu-139, Cys-168 to His-174.			
HVCAE15	HVCAE15R	2024	3 - 605	4199	Pro-49 to Val-58, Gln-60 to Gln-78, Arg-85 to His-99, Phe-122 to Asp-128, Arg-157 to Arg-163, Leu-178 to Thr-193.			
HVCAE22	HVCAE22R	2025	2 - 493	4200	Gly-19 to Ala-24, Asn-32 to Val-38.	S0358: 7, H0659: 7, H0542: 7, H0543: 6, L0666: 5, L0747: 5, S0418: 4, H0494: 4, L0657: 4, L0517: 4, S0374: 4, L0731: 4, L0596: 4, H0341: 3, H0385: 3, S0346: 3, H0553: 3, S0144: 3, S0210: 3, L0764: 3, L0659: 3, L0663: 3, L0664: 3, H0521: 3, L0754: 3, L0779: 3, L0752: 3, L0755: 3, H0445: 3, H0422: 3, T0049: 2, S0116: 2, S0212: 2, S0282: 2, S0376: 2, S0360: 2, S0045: 2, H0486: 2, H0250: 2, H0427: 2, H0581: 2, H0251: 2,		

HVCAG86	HVCAG86R	2028	150 - 509	4203	Arg-6 to Pro-21.			
HVCAH03	HVCAH03R	2029	3 - 689	4204		H0620: 16, L0747: 12, H0599: 11, L0758: 9, S0358: 8, L0751: 7, L0754: 7, L0596: 7, H0556: 6, H0393: 5, H0706: 5, H0052: 5, H0616: 5, H0529: 5, L0774: 5, L0776: 5, H0483: 4, S0442: 4, H0253: 4, H0012: 4, H0083: 4, S0150: 4, L0662: 4, H0670: 4, H0521: 4, L0748: 4, L0581: 4, H0543: 4, H0341: 3, S0376: 3, H0580: 3, S0007: 3, S0280: 3, H0036: 3, H0618: 3, H0581: 3, H0309: 3, H0510: 3, H0428: 3, H0040: 3, H0087: 3, L0764: 3, L0775: 3, L0655: 3, L0666: 3, L0663: 3, L0664: 3, H0547: 3, L0749: 3, L0750: 3, L0595: 3, H0657: 2, H0656: 2, S0116: 2, H0638: 2, S0356: 2, S0360: 2, S0046: 2,		

	H0411: 2, H0550: 2, S6014: 2, H0370: 2, H0574: 2, L0622: 2, L0623: 2, H0042: 2, S0182: 2, H0318: 2, H0085: 2, H0373: 2, H0275: 2, H0188: 2, H0030: 2, H0169: 2, H0124: 2, H0135: 2, H0038: 2, H0100: 2, T0042: 2, H0494: 2, H0625: 2, H0509: 2, H0132: 2, H0130: 2, H0538: 2, L0800: 2, L0768: 2, L0381: 2, L0784: 2, L0378: 2, L0653: 2, L0659: 2, L0809: 2, H0651: 2, H0696: 2, H0134: 2, S3014: 2, S0027: 2, L0743: 2, L0744: 2, L0740: 2, L0731: 2, S0031: 2, L0604: 2, H0423: 2, H0352: 2, H0265: 1, T0002: 1, S0134: 1, H0583: 1, H0484: 1, H0661: 1, L0005: 1, S0408: 1, S0045: 1, H0619: 1, H0645: 1, H0351: 1,	
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				H0369: 1, H0549: 1, T0104: 1, H0592: 1, H0587: 1, H0333: 1, H0643: 1, H0331: 1, H0632: 1, H0270: 1, H0101: 1, H0013: 1, H0575: 1, S0010: 1, H0196: 1, H0263: 1, T0115: 1, H0597: 1, H0530: 1, H0545: 1, H0009: 1, H0571: 1, H0081: 1, H0050: 1, H0024: 1, H0095: 1, L0163: 1, H0051: 1, S0388: 1, H0107: 1, H0375: 1, H0266: 1, S0334: 1, H0288: 1, H0286: 1, H0252: 1, H0039: 1, H0424: 1, H0213: 1, H0181: 1, H0673: 1, H0674: 1, S0364: 1, H0708: 1, S0366: 1, S0036: 1, H0591: 1, H0551: 1, H0488: 1, H0412: 1, H0413: 1, H0623: 1, T0041: 1, L0475: 1, H0560: 1, H0561: 1, S0306: 1, H0714: 1, H0641: 1, H0633: 1,
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HVCAI08	HVCAI08R	2032	67 - 453	4207	Pro-6 to Arg-13, Met-34 to Asp-41, Lys-65 to Thr-74.	L0748: 28, L0754: 27, L0740: 15, H0056: 13, L0750: 13, S0007: 12, L0757: 12, S0126: 11, S0222: 10, L0731: 10, S0360: 9, H0144: 9, S0358: 8, H0009: 8, L0005: 7, S0010: 7, H0266: 7, L0742: 7, L0752: 7, H0547: 6, S0408: 5, S0046: 5, L0471: 5, S0003: 5, S0028: 5, L0758: 5, L0362: 5, S0026: 5, H0294: 4, H0341: 4, H0638: 4, S0045: 4, H0327: 4, H0039: 4, H0031: 4, H0413: 4, S0210: 4, L0769: 4, L0662: 4, L0775: 4, L0776: 4, L0809: 4, H0689: 4, S3014: 4, S0206: 4, L0747: 4, H0445: 4, L0608: 4, H0661: 3, S0376: 3, S0278: 3, H0369: 3, H0441: 3, H0575: 3, S0049: 3, S0388: 3, S0036: 3, H0616: 3, H0100: 3, H0494: 3,		
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					S0440: 3, L0520: 3, L0764: 3, S0374: 3, H0682: 3, H0659: 3, H0672: 3, S0027: 3, L0439: 3, S0192: 3, H0624: 2, H0170: 2, T0002: 2, H0716: 2, S0282: 2, H0305: 2, S0420: 2, L0103: 2, H0592: 2, H0586: 2, T0039: 2, T0109: 2, H0013: 2, S0346: 2, T0048: 2, H0318: 2, S0474: 2, H0251: 2, H0597: 2, H0150: 2, H0178: 2, H0569: 2, H0081: 2, H0024: 2, S0051: 2, H0615: 2, H0428: 2, H0644: 2, H0708: 2, H0090: 2, H0412: 2, H0059: 2, H0633: 2, S0142: 2, S0422: 2, L0772: 2, L0646: 2, L0768: 2, L0806: 2, L0782: 2, H0684: 2, S0328: 2, S0378: 2, S0380: 2, H0522: 2, H0134: 2, S0406: 2, S3012: 2, L0751: 2, L0755: 2,
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	S0031: 2, L0605: 2, L0592: 2, L0601: 2, L0600: 2, L0615: 1, H0265: 1, S0040: 1, S0342: 1, T0049: 1, S0134: 1, H0650: 1, H0657: 1, S0116: 1, H0663: 1, H0177: 1, H0125: 1, H0192: 1, S0348: 1, S0356: 1, S0442: 1, S0354: 1, S0444: 1, S0410: 1, T0008: 1, H0580: 1, H0208: 1, S0132: 1, S6026: 1, S0300: 1, H0549: 1, H0431: 1, H0370: 1, H0438: 1, H0574: 1, H0250: 1, H0427: 1, H0097: 1, T0082: 1, H0421: 1, L2250: 1, H0309: 1, T0110: 1, H0544: 1, H0086: 1, H0563: 1, H0014: 1, H0051: 1, H0021: 1, H0083: 1, H0594: 1, S6028: 1, H0687: 1, H0290: 1, H0286: 1, S0214: 1, H0622: 1, T0023: 1, H0111: 1, H0628: 1,	
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1415

							L0596: 1, L0588: 1, L0599: 1, L0366: 1, S0011: 1, H0668: 1, H0216: 1, S0242: 1, S0196: 1, H0542: 1, H0543: 1, L0697: 1, L0698: 1, S0398: 1, S0424: 1, S3020: 1 and S0460: 1.			
HVCAI24	HVCAI24R	2033	108 - 365	4208	Asn-1 to Lys-6.					
HVCAI79	HVCAI79R	2034	2 - 508	4209						
HVCAJ27	HVCAJ27R	2035	1 - 537	4210			S0408: 5, L0809: 5, L0800: 4, L0804: 4, H0647: 3, L0803: 3, L0775: 3, L0805: 3, S0126: 3, L0751: 3, S0360: 2, S0278: 2, H0409: 2, H0424: 2, H0617: 2, H0494: 2, L0783: 2, H0670: 2, L0747: 2, L0777: 2, L0731: 2, L0601: 2, H0556: 1, H0295: 1, S0116: 1, H0341: 1, S0442: 1, S0358: 1, S0376: 1, H0370: 1, H0042: 1, H0575: 1, S0049: 1, H0150: 1, H0163: 1, S0294: 1, S0438: 1, H0633: 1,			

								H0529: 1, L0769: 1, L0374: 1, L0764: 1, L0560: 1, L0774: 1, L0376: 1, L0629: 1, L0807: 1, L0657: 1, L0659: 1, L0791: 1, L0666: 1, H0682: 1, H0683: 1, H0658: 1, H0666: 1, S0328: 1, H0539: 1, H0555: 1, H0436: 1, S3012: 1, L0779: 1, L0752: 1, L0757: 1, L0758: 1, L0759: 1, H0667: 1 and H0423: 1.			
HVCAJ81	HVCAJ81R	2036	1 - 477	4211		Lys-61 to Gln-73, Gln-81 to Ser-97.					
HVCAJ95	HVCAJ95R	2037	1 - 210	4212		Arg-14 to Gly-41, Arg-47 to Glu-53, Gln-56 to Lys-70.					
HVCAK02	HVCAK02R	2038	3 - 467	4213		Glu-1 to Lys-9.					
HVCAL06	HVCAL06R	2039	3 - 383	4214							
HVCAO17	HVCAO17R	2040	1 - 516	4215				H0009: 3, H0135: 3, H0494: 3, H0265: 2, H0341: 2, H0484: 2, S0046: 2, S0222: 2, H0266: 2, S0144: 2, H0658: 2, L0742: 2, H0542: 2, H0423: 2, H0171: 1, T0002: 1,			

1418

1419

L0565: 2, H0659: 2, H0666: 2, H0648: 2, S0328: 2, H0525: 2, H0696: 2, H0134: 2, S0406: 2, L0756: 2, L0752: 2, L0757: 2, S0436: 2, L0595: 2, S0384: 2, H0506: 2, H0171: 1, S0040: 1, T0049: 1, H0661: 1, H0638: 1, S0418: 1, S0354: 1, S0360: 1, S0410: 1, S0007: 1, S0300: 1, S0278: 1, S6014: 1, H0431: 1, H0587: 1, H0333: 1, H0574: 1, H0270: 1, T0040: 1, L0586: 1, H0635: 1, H0156: 1, T0082: 1, H0706: 1, S0346: 1, H0421: 1, H0052: 1, H0597: 1, H0545: 1, H0242: 1, L0471: 1, H0373: 1, S0051: 1, H0375: 1, H0594: 1, H0687: 1, H0288: 1, H0328: 1, H0553: 1, L0143: 1, H0032: 1, H0598: 1, H0634: 1, H0616: 1,
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HVCAS57	HVCAS57R	2048	114 - 257	4223		H0413: 1, H0100: 1, T0042: 1, H0560: 1, H0625: 1, H0561: 1, S0150: 1, H0633: 1, H0652: 1, L0763: 1, L0371: 1, L0638: 1, L0667: 1, L0648: 1, L0521: 1, L0662: 1, L0649: 1, L0803: 1, L0776: 1, L0783: 1, L0383: 1, L0647: 1, L0664: 1, L0665: 1, H0520: 1, H0689: 1, H0414: 1, H0658: 1, H0670: 1, H0660: 1, H0710: 1, S0152: 1, S0332: 1, S0454: 1, H0522: 1, H0704: 1, H0214: 1, S3012: 1, S3014: 1, S0027: 1, S0028: 1, S0206: 1, L0740: 1, L0750: 1, S0434: 1, L0581: 1, H0653: 1, H0667: 1, S0242: 1, S0194: 1, H0422: 1 and S0424: 1. L0748: 6, L0439: 6, L0731: 6, H0663: 4, S0354: 4, H0038: 3, S0150: 3, L0666: 3,		
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1422

HVCAU64	HVCAU64R	2049	3 - 404	4224	Arg-7 to Val-15.	E0668: 1, S0276: 1 and H0422: 1.	
HVCBD18	HVCBD18R	2050	190 - 309	4225	Val-3 to Lys-9, Leu-32 to Gln-40.		
HVCBE76	HVCBE76R	2051	3 - 431	4226			
HVCBE79	HVCBE79R	2052	3 - 524	4227			
HVCBF38	HVCBF38R	2053	3 - 251	4228			
HVCBF89	HVCBF89R	2054	2 - 361	4229		AR039: 419, AR096: 339, AR053: 225, AR052: 212, AR104: 168, AR089: 168, AR060: 114, AR033: 108, AR055: 99, AR061: 74	
HVCBG01	HVCBG01R	2055	22 - 318	4230	Lys-7 to Thr-13, Asp-24 to Thr-30, Gly-39 to Glu-52.		
HVCBQ31	HVCBQ31R	2056	2 - 448	4231			
HVCCA08	HVCCA08R	2057	2 - 298	4232			
HVCCCK34	HVCCCK34R	2058	34 - 699	4233			
HVCCR91	HVCCR91R	2059	1 - 156	4234			
HVCCV93	HVCCV93R	2060	203 - 469	4235	Ser-25 to Asn-31, Asp-38 to Val-48, Ser-57 to Gly-63.		
HVCDA75	HVCDA75R	2061	1 - 315	4236			
HVCDD19	HVCDD19R	2062	31 - 459	4237	Pro-1 to Ser-7, Val-22 to Asn-29,		

					Pro-45 to Pro-51, Arg-59 to Val-64, Val-92 to Lys-98.				
HVCDF50	HVCDF50R	2063	3 - 353	4238	Ser-56 to Phe-69, Arg-113 to Thr-123, Leu-128 to Ser-135, Lys-148 to Ala-156, Gly-166 to Ser-171, Glu-188 to Leu-194, Ala-211 to Gly-222.				H0666: 8, S0144: 6, L0747: 5, H0545: 4, L0769: 4, L0766: 4, L0731: 4, H0341: 3, L0764: 3, L0794: 3, L0750: 3, L0755: 3, L0758: 3, S0045: 2, H0257: 2, H0581: 2, H0546: 2, H0135: 2, L0803: 2, L0657: 2, L0789: 2, L0666: 2, S0044: 2, H0445: 2, L0588: 2, L0594: 2, L0601: 2, H0543: 2, S0040: 1, H0295: 1, H0583: 1, S0116: 1, S0212: 1, H0661: 1, H0664: 1, S0418: 1, S0356: 1, S0358: 1, S0360: 1, S0007: 1, S0046: 1, S0132: 1, S0278: 1, H0592: 1, H0586: 1, H0559: 1, H0575: 1, S0182: 1, H0620: 1, S0388: 1, H0083: 1, S0312: 1,
HVCDH77	HVCDH77R	2064	2 - 679	4239					

HVVAB25	HVVAB25R	2065	3 - 155	4240			H0617: 1, H0169: 1, H0708: 1, H0163: 1, H0551: 1, H0488: 1, T0069: 1, H0102: 1, H0100: 1, H0494: 1, L0475: 1, H0646: 1, S0142: 1, S0002: 1, L0762: 1, L0796: 1, L0646: 1, L0800: 1, L0645: 1, L0771: 1, L0662: 1, L0768: 1, L0386: 1, L0651: 1, L0783: 1, L0790: 1, L0791: 1, L0663: 1, H0144: 1, L0438: 1, H0519: 1, H0134: 1, S3014: 1, L0740: 1, L0779: 1, L0757: 1, S0031: 1, L0592: 1, H0665: 1, S0276: 1 and H0422: 1.	
HVVAB37	HVVAB37R	2066	74 - 619	4241				
HVVAC18	HVVAC18R	2067	56 - 238	4242				
HVVAD74	HVVAD74R	2068	403 - 570	4243			L0766: 12, S0412: 8, S0422: 4, L0756: 4, H0341: 3, H0638: 3, L0770: 3, L0666: 3, L0777: 3, S0360: 2, H0318: 2, H0327: 2.	

L0803: 2, H0670: 2, L0740: 2, L0731: 2, S0260: 2, S0436: 2, H0170: 1, H0125: 1, S0418: 1, S0444: 1, H0489: 1, H0580: 1, H0734: 1, S0222: 1, H0587: 1, H0497: 1, H0013: 1, H0075: 1, H0427: 1, H0046: 1, H0354: 1, L0142: 1, L0055: 1, H0090: 1, H0412: 1, S0440: 1, H0647: 1, H0529: 1, L0369: 1, L0371: 1, L0772: 1, L0646: 1, L0771: 1, L0649: 1, L0381: 1, L0650: 1, L0774: 1, L0653: 1, L0655: 1, L0606: 1, L0790: 1, L0532: 1, L0663: 1, L0664: 1, S0374: 1, H0593: 1, H0711: 1, H0659: 1, H0658: 1, H0672: 1, H0521: 1, L0779: 1, L0755: 1, L0758: 1, L0759: 1, L0593: 1, S0242: 1, H0423: 1 and H0721: 1.					
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HVVAE73	HVVAE73R	2069	96 - 347	4244	Glu-21 to Ile-26.			
HVVAE88	HVVAE88R	2070	157 - 381	4245	Ser-1 to Asp-9, Lys-26 to Gln-36.	H0672: 2, L0748: 2, H0156: 1 and H0494: 1.		
HVVAH91	HVVAH91R	2071	3 - 245	4246		L0747: 5, L0731: 4, L0742: 3, L0745: 3, L0769: 2, L0766: 2, L0774: 2, L0597: 2, L0604: 2, T0049: 1, S0358: 1, H0549: 1, H0486: 1, T0040: 1, S0280: 1, H0318: 1, H0263: 1, H0551: 1, H0633: 1, H0529: 1, L0640: 1, L0763: 1, L0771: 1, L0768: 1, L0388: 1, L0657: 1, L0659: 1, L0517: 1, L0666: 1, L0663: 1, H0648: 1, H0672: 1, H0521: 1, L0749: 1, L0750: 1, L0779: 1, L0780: 1 and L0592: 1.		
HVVAI03	HVVAI03R	2072	2 - 307	4247				
HVVAJ23	HVVAJ23R	2073	3 - 527	4248	Gln-33 to Ala-38, Thr-47 to Asn-64, Pro-117 to Leu-122, Thr-160 to Gly-171.			
HVVAJ28	HVVAJ28R	2074	1 - 327	4249	His-1 to Trp-6, Gly-28 to Asp-34, Arg-41 to Ala-53,			

HVVAJ47	HVVAJ47R	2075	159 - 443	4250	Arg-69 to Thr-76, Leu-97 to Glu-103.	L0659: 55, H0644: 23, L0748: 18, L0666: 17, L0747: 17, H0622: 16, S0194: 16, H0553: 15, L0662: 15, S0126: 15, L0740: 15, L0754: 14, H0031: 13, H0593: 12, L0649: 11, H0435: 11, L0757: 11, H0124: 10, S0250: 9, S0356: 8, H0672: 7, L0362: 7, L0779: 6, S0210: 5, L0771: 5, L0663: 5, L0664: 5, H0547: 5, L0750: 5, L0601: 5, S0360: 4, H0619: 4, L0764: 4, L0804: 4, L0775: 4, S0358: 3, H0486: 3, H0628: 3, H0264: 3, L0451: 3, L0776: 3, L0655: 3, L0783: 3, H0693: 3, H0660: 3, S0454: 3, L0749: 3, L0605: 3, S0192: 3, H0170: 2, H0294: 2, S0180: 2, H0586: 2, H0013: 2, H0687: 2, H0428: 2,		
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1429

							L0646: 1, L0768: 1, L0375: 1, L0784: 1, L0806: 1, L0805: 1, L0653: 1, L0654: 1, L0517: 1, L0384: 1, L0383: 1, L0647: 1, L0789: 1, L0791: 1, L0438: 1, H0520: 1, H0689: 1, H0682: 1, H0684: 1, S0152: 1, H0704: 1, H0555: 1, S0432: 1, S3014: 1, S0027: 1, S0028: 1, L0744: 1, L0758: 1, H0595: 1, H0707: 1, S0436: 1, L0591: 1, L0599: 1, S0196: 1, H0422: 1, S0384: 1 and L0600: 1.			
HVVAK42	HVVAK42R	2076	121 - 312	4251						
HVVAK46	HVVAK46R	2077	3 - 782	4252	Lys-1 to Lys-14, Phe-21 to Trp-26, Val-87 to Cys-92, Thr-139 to Gln-153, Gln-156 to Lys-162, Glu-171 to Leu-177.					
HVVAK68	HVVAK68R	2078	372 - 584	4253			L0747: 22, L0599: 11, L0766: 9, L0748: 9, L0483: 8, L0740: 7, L0665: 5, L0754: 5.			

1432

AR096: 5, AR060: 4, AR055: 4, AR061: 3 H0169: 21, H0674: 19, L0754: 19, H0309: 15, T0060: 7, H0038: 7, H0509: 7, S0044: 7, S0358: 6, H0124: 6, H0163: 6, H0672: 6, L0731: 6, L0750: 5, L0603: 5, H0032: 4, H0616: 4, S0330: 4, L0749: 4, L0755: 4, H0597: 3, S0318: 3, H0622: 3, L0540: 3, S0328: 3, S0406: 3, L0758: 3, S0444: 2, H0486: 2, H0122: 2, H0355: 2, S0316: 2, L0770: 2, L0646: 2, L0771: 2, L0662: 2, L0364: 2, L0803: 2, L0783: 2, H0696: 2, L0743: 2, L0747: 2, L0581: 2, H0506: 2, S0356: 1, S0376: 1, H0675: 1, H0643: 1, H0706: 1, H0253: 1, H0085: 1, H0204: 1, H0510: 1, S0314: 1, H0553: 1, H0673: 1,						
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HVVP65	HVVP65RP 00B	2081	124 - 354	4256	Arg-1 to Cys-10, Asn-29 to Phe-38.							
HVVP27	HVVP27RP 00B	2082	3 - 413	4257								
HVPAW26	HVPAW26R	2083	1 - 324	4258	Lys-62 to Tyr-73.							
HVPBD91	HVPBD91RP 00B	2084	2 - 436	4259								
HVPBF09	HVPBF09R	2085	3 - 236	4260	Leu-36 to Ser-43, Gly-68 to Phe-73.							
HVPBF66	HVPBF66R	2086	7 - 171	4261	Lys-17 to Tyr-22.				H0672: 2, S0007: 1, L0717: 1, H0545: 1, L0764: 1, L0649: 1, L0659: 1, L0809: 1, L0438: 1, H0555: 1, L0748: 1, L0754: 1 and L0752: 1.			
HVPBH88	HVPBH88R	2087	1 - 189	4262					L0659: 14, L0740: 11, H0052: 8, L0662: 8, L0666: 8, H0059: 7, H0265: 6, H0040: 6,			

L0596: 6, S0356: 5, S0358: 5, H0539: 5, L0751: 5, L0750: 5, H0431: 4, L0759: 4, H0442: 3, H0575: 3, H0051: 3, T0010: 3, H0428: 3, H0031: 3, H0135: 3, H0433: 3, H0412: 3, H0509: 3, L0637: 3, L0372: 3, L0521: 3, L0806: 3, L0519: 3, L0663: 3, L0664: 3, L0665: 3, S0378: 3, L0591: 3, L0593: 3, H0483: 2, S0360: 2, H0587: 2, H0013: 2, H0036: 2, S0010: 2, S0049: 2, H0194: 2, T0110: 2, H0046: 2, H0123: 2, H0024: 2, H0083: 2, H0179: 2, T0006: 2, H0038: 2, H0538: 2, S0002: 2, L0769: 2, L0796: 2, L0646: 2, L0374: 2, L0648: 2, L0776: 2, H0520: 2, H0519: 2, H0689: 2, H0555: 2, S0028: 2, L0439: 2, L0752: 2,
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1436

							L0761: 1, L0803: 1, L0653: 1, L0661: 1, L0527: 1, L0636: 1, L0783: 1, L0809: 1, T0068: 1, L0438: 1, S0126: 1, H0690: 1, H0682: 1, H0435: 1, H0658: 1, H0670: 1, H0660: 1, H0672: 1, H0651: 1, S0380: 1, H0522: 1, S0044: 1, H0478: 1, H0479: 1, S0027: 1, L0742: 1, L0748: 1, L0747: 1, L0756: 1, L0757: 1, L0758: 1, H0444: 1, H0445: 1, L0597: 1, L0581: 1, L0603: 1, S0011: 1, S0194: 1, S0196: 1, S0042: 1, L0697: 1 and H0506: 1.			
HVVB116	HVVB116R	2088	2 - 592	4263						
HVVB108	HVVB108R	2089	150 - 578	4264	Gln-5 to Pro-13, Pro-25 to Lys-32, Asp-62 to Ser-72, Gln-78 to Ser-85, Pro-91 to Glu-105.					
HVVB155	HVVB155RP 00B	2090	3 - 413	4265						
HVVBK13	HVVBK13R	2091	1 - 633	4266						

HVVBO65	HVVBO65R	2092	3 - 644	4267	Pro-62 to Pro-73, Thr-80 to Ser-92, Gln-108 to Tyr-116.			
HVVBO88	HVVBO88R	2093	50 - 433	4268				
HVVBR70	HVVBR70RP 00B	2094	2 - 406	4269				
HVVBT33	HVVBT33R	2095	116 - 316	4270	Asn-15 to Leu-27, Lys-48 to Val-53.			
HVVBT60	HVVBT60R	2096	454 - 2	4271				
HVVBY87	HVVBY87R	2097	3 - 161	4272				
HVVCB04	HVVCB04R	2098	2 - 580	4273	Pro-1 to Phe-9, Ser-111 to Asn-117, Ser-159 to Pro-167.			
HVVCB08	HVVCB08R	2099	1 - 792	4274	Ser-56 to Tyr-62, Gln-67 to Pro-74, Thr-83 to Gly-94, Gln-120 to Gln-130, Pro-150 to Ser-157.			
HVVCC06	HVVCC06R	2100	299 - 427	4275				
HVVCD65	HVVCD65R	2101	224 - 481	4276	Lys-40 to Gly-47.			
HVVCD81	HVVCD81R	2102	2 - 640	4277				
HVVCD87	HVVCD87R	2103	447 - 695	4278		L0439: 23, L0438: 20, H0556: 10, L0665: 10, S0358: 9, L0731: 8, H0423: 8, H0069: 7, H0622: 7, L0666: 7, L0748: 7, L0747: 7, H0486: 6, H0090: 6, L0664: 6, H0519: 6,		

	H0539: 6, L0749: 6, L0596: 6, S0222: 5, H0457: 5, H0435: 5, L0756: 5, L0758: 5, L0601: 5, H0013: 4, H0046: 4, H0150: 4, H0266: 4, H0038: 4, L0771: 4, L0662: 4, L0659: 4, L0663: 4, H0670: 4, H0672: 4, H0521: 4, S0404: 4, L0745: 4, H0265: 3, S0114: 3, H0650: 3, H0662: 3, S0360: 3, S0045: 3, H0333: 3, H0156: 3, H0318: 3, H0050: 3, H0620: 3, T0010: 3, H0375: 3, H0428: 3, H0039: 3, H0591: 3, H0040: 3, H0063: 3, H0412: 3, H0100: 3, H0529: 3, L0770: 3, L0775: 3, L0809: 3, H0547: 3, S0126: 3, H0436: 3, L0741: 3, L0752: 3, S0026: 3, H0624: 2, H0713: 2, H0583: 2, S0116: 2, H0663: 2, H0305: 2, H0638: 2,	
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	S0010: 1, S0665: 1, H0581: 1, S0049: 1, H0052: 1, H0251: 1, H0309: 1, H0263: 1, H0597: 1, H0041: 1, H0563: 1, H0081: 1, H0012: 1, H0023: 1, H0051: 1, S0051: 1, H0356: 1, H0267: 1, H0179: 1, S0250: 1, H0252: 1, H0615: 1, T0023: 1, T0006: 1, H0031: 1, H0644: 1, L0055: 1, H0673: 1, S0364: 1, L0455: 1, H0068: 1, H0400: 1, S0036: 1, H0087: 1, H0551: 1, H0102: 1, T0041: 1, H0625: 1, H0641: 1, S0344: 1, S0002: 1, S0426: 1, L0369: 1, L0769: 1, L5575: 1, L0772: 1, L0373: 1, L0372: 1, L0363: 1, L0767: 1, L0649: 1, L0560: 1, L0650: 1, L0375: 1, L0661: 1, L0807: 1, L0384: 1, L0519: 1, L0792: 1, S0428: 1,				
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HVVC90	HVVC90R	2104	47 - 754	4279			H0144: 1, L0352: 1, H0520: 1, H0682: 1, H0660: 1, H0651: 1, H0710: 1, H0518: 1, S0152: 1, H0579: 1, H0696: 1, S0146: 1, H0576: 1, H0631: 1, S3012: 1, S0037: 1, S0028: 1, L0751: 1, L0754: 1, L0779: 1, L0777: 1, L0780: 1, L0753: 1, L0759: 1, S0031: 1, H0445: 1, L0687: 1, L0599: 1, L0608: 1, L0595: 1, H0136: 1, S0242: 1, S0194: 1, S0276: 1, H0543: 1, S0424: 1 and S0452: 1.	
HVVC63	HVVC63R	2105	338 - 778	4280				
HVVC65	HVVC65R	2106	2 - 214	4281				
HVVC38	HVVC38R	2107	3 - 497	4282				
HVVC29	HVVC29R	2108	1 - 441	4283			H0135: 2, S0046: 1, S0222: 1, H0052: 1, H0672: 1, S0328: 1 and H0214: 1.	
HVVC31	HVVC31R	2109	2 - 415	4284				
HVVC46	HVVC46R	2110	3 - 350	4285				
							Gly-16 to Lys-22, Trp-82 to Lys-87.	

HVVC93	HVVC93R	2111	1 - 405	4286	Arg-48 to Asn-57, Lys-77 to Glu-83, Phe-106 to Asp-112.	AR089: 107, AR096: 52, AR104: 30, AR060: 27, AR061: 14, AR055: 13		
HVVC28	HVVC28R	2112	3 - 350	4287	Glu-81 to Gly-91, Arg-107 to Asn-116.			
HVVC28	HVVC28R	2113	3 - 119	4288	Asp-10 to Lys-15, Lys-29 to Asp-34.			
HVVC50	HVVC50R	2114	44 - 460	4289				
HVVC85	HVVC85R	2115	3 - 647	4290	Asp-1 to Thr-14, Ala-76 to Thr-88, Asp-101 to Lys-115, Ala-128 to Gln-136, Pro-141 to Gln-151.			
HVVC51	HVVC51R	2116	1 - 351	4291		H0585: 4, H0457: 4, L0809: 4, L0747: 4, S0442: 3, H0492: 3, H0427: 3, H0318: 3, L0666: 3, H0690: 3, H0686: 2, H0662: 2, S0358: 2, S0408: 2, H0150: 2, H0135: 2, H0063: 2, H0494: 2, L0761: 2, L0764: 2, L0773: 2, L0662: 2, L0378: 2, L0665: 2, H0670: 2, S0406: 2, L0744: 2, L0749: 2, L0601: 2, H0170: 1,		

1444

HVCK59	HVCK59R	2117	1 - 147	4292		L0751: 3, L0757: 3, L0662: 2, H0686: 1, H0266: 1, L0055: 1, L0763: 1, L0764: 1, L0768: 1, L0805: 1, L0653: 1, L0666: 1, H0690: 1, H0672: 1, L0777: 1, L0758: 1 and S0276: 1.		
HVCK78	HVCK78R	2118	3 - 320	4293				
HVCL52	HVCL52R	2119	1 - 339	4294	Pro-11 to Lys-31, Ser-36 to Gln-44, Thr-53 to Gly-58, Ala-74 to Arg-87, Pro-105 to His-113.			
HVCL73	HVCL73R	2120	2 - 775	4295	Gly-8 to Lys-22, Phe-29 to Trp-34, Val-95 to Cys-100, Thr-147 to Gln-161, Gln-164 to Lys-170, Glu-179 to Leu-185, Pro-194 to Gly-199.			
HVCM67	HVCM67R	2121	3 - 293	4296	Trp-36 to Thr-43, Gly-51 to Thr-70, Tyr-87 to Glu-97.			
HVCM84	HVCM84R	2122	3 - 347	4297				
HVVCN20	HVVCN20R	2123	35 - 466	4298				
HVVCN29	HVVCN29R	2124	96 - 332	4299		H0521: 182, H0522: 34, S0002: 30, S0278: 27, H0638: 23, S0344:		

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	H0427: 1, L0021: 1, H0581: 1, H0374: 1, H0597: 1, H0544: 1, H0546: 1, H0569: 1, H0123: 1, L0471: 1, H0012: 1, S0388: 1, H0275: 1, H0375: 1, H0286: 1, S0003: 1, L0194: 1, T0006: 1, H0644: 1, H0032: 1, H0674: 1, H0361: 1, S0036: 1, H0038: 1, H0040: 1, H0551: 1, H0413: 1, L0475: 1, H0561: 1, S0438: 1, H0131: 1, H0641: 1, L0369: 1, L0762: 1, L0637: 1, L0800: 1, L0662: 1, L0649: 1, L0388: 1, L0774: 1, L0775: 1, L0651: 1, L0653: 1, L0809: 1, L0789: 1, L0666: 1, L0665: 1, S0374: 1, S0126: 1, H0435: 1, H0659: 1, H0672: 1, S0378: 1, H0518: 1, S0392: 1, S3014: 1, L0751: 1, L0779: 1, L0780: 1, L0731: 1,	
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								L0759: 1, S0260: 1, L0599: 1, S0026: 1, H0423: 1, S0412: 1 and H0506: 1.			
HVVCN54	HVVCN54R	2125	2 - 460	4300							
HVVCN66	HVVCN66R	2126	3 - 212	4301							
HVVC013	HVVC013R	2127	2 - 352	4302			Gln-61 to Pro-68, Gln-103 to Ala-108, Tyr-111 to Thr-117.				
HVVC016	HVVC016R	2128	170 - 334	4303			Val-28 to Ser-33.				
HVVC087	HVVC087R	2129	3 - 404	4304			Lys-54 to Ala-67, Arg-77 to Thr-86.				
HVVC041	HVVC041R	2130	2 - 442	4305							
HVVC088	HVVC088R	2131	3 - 449	4306			Ala-35 to Ala-41, Pro-46 to Gly-54, Pro-67 to Gly-87.				
HVVC005	HVVC005R	2132	11 - 184	4307			Ser-23 to Lys-30.				
HVVC049	HVVC049R	2133	3 - 605	4308			Glu-74 to Arg-79, Glu-117 to Arg-134.				
HVVC070	HVVC070R	2134	10 - 144	4309			Arg-30 to Phe-36.	H0672: 2 and L0518: 1.			
HVVC093	HVVC093R	2135	1 - 630	4310							
HVVC028	HVVC028R	2136	105 - 335	4311							
HVVC032	HVVC032R	2137	35 - 217	4312			Arg-11 to Pro-17, Ser-33 to Lys-46.				
HVVC054	HVVC054R	2138	237 - 698	4313			His-1 to Asn-8, Arg-10 to Gly-16, Tyr-50 to Gly-56.	L0659: 55, H0644: 23, L0748: 18, L0666: 17, L0747: 17, H0622: 16, S0194: 16, H0553: 15,			

L0662: 15, S0126: 15, L0740: 15, L0754: 14, H0031: 13, H0593: 12, L0649: 11, H0435: 11, L0757: 11, H0124: 10, S0250: 9, S0356: 8, H0672: 7, L0362: 7, L0779: 6, S0210: 5, L0771: 5, L0663: 5, L0664: 5, H0547: 5, L0750: 5, L0601: 5, S0360: 4, H0619: 4, L0764: 4, L0804: 4, L0775: 4, S0358: 3, H0486: 3, H0628: 3, H0264: 3, L0451: 3, L0776: 3, L0655: 3, L0783: 3, H0693: 3, H0660: 3, S0454: 3, L0749: 3, L0605: 3, S0192: 3, H0170: 2, H0294: 2, S0180: 2, H0586: 2, H0013: 2, H0687: 2, H0428: 2, L0483: 2, H0488: 2, S0450: 2, H0647: 2, S0208: 2, L0648: 2, L0523: 2, L0809: 2, L0665: 2, H0144: 2, L0565: 2, H0690: 2,					
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[illegible]

HVVCU50	HVVCU50R	2141	23 - 307	4316	Gln-8 to Lys-13, Glu-32 to Arg-56, Ser-60 to Thr-69.	L0747: 16, L0750: 15, L0752: 15, L0769: 9, L0757: 9, L0005: 8, L0775: 8, L0740: 8, L0774: 6, L0471: 5, H0087: 5, L0758: 5, H0656: 4, L0772: 4, L0731: 4, L0588: 4, H0657: 3, H0341: 3, H0638: 3, S0007: 3, S0046: 3, H0599: 3, S0049: 3, H0009: 3, H0412: 3, L0776: 3, L0783: 3, S0374: 3, H0660: 3, H0672: 3, L0749: 3, L0755: 3, H0352: 3, S0222: 2, H0441: 2, H0251: 2.	H0574: 1, H0635: 1, S0049: 1, H0052: 1, T0010: 1, H0288: 1, H0286: 1, H0553: 1, L0455: 1, L0351: 1, H0538: 1, L0763: 1, L0638: 1, L0775: 1, L0659: 1, L0783: 1, L0789: 1, L0663: 1, L0665: 1, H0690: 1, S0152: 1, L0740: 1, L0753: 1 and S0424: 1.		
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	H0309: 2, H0620: 2, H0266: 2, T0067: 2, H0494: 2, L0761: 2, L0651: 2, L0518: 2, S0126: 2, H0670: 2, S0328: 2, H0521: 2, S3012: 2, S0206: 2, L0745: 2, L0753: 2, L0759: 2, L0596: 2, L0608: 2, H0423: 2, H0395: 1, T0002: 1, H0685: 1, S0218: 1, S0116: 1, S0110: 1, H0484: 1, H0661: 1, H0663: 1, H0306: 1, H0402: 1, S0356: 1, S0442: 1, S0358: 1, S0360: 1, H0208: 1, S0045: 1, H0393: 1, H0351: 1, H0392: 1, H0333: 1, H0574: 1, L0623: 1, T0039: 1, T0040: 1, L0586: 1, H0250: 1, H0156: 1, H0575: 1, S0346: 1, H0318: 1, H0581: 1, H0421: 1, H0597: 1, H0546: 1, H0545: 1, H0046: 1, H0041: 1, H0081: 1, H0012: 1,	
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	H0023: 1, S0388: 1, H0275: 1, H0356: 1, S0023: 1, H0594: 1, H0188: 1, H0428: 1, H0535: 1, H0674: 1, S0036: 1, H0135: 1, H0063: 1, H0413: 1, H0056: 1, T0004: 1, H0100: 1, T0042: 1, H0334: 1, H0641: 1, H0647: 1, S0144: 1, S0344: 1, L0763: 1, L0371: 1, L0637: 1, L0764: 1, L0768: 1, L0364: 1, L0376: 1, L0524: 1, L0632: 1, L0655: 1, L0659: 1, L0782: 1, L0809: 1, L0666: 1, L0663: 1, H0144: 1, L0565: 1, H0691: 1, H0547: 1, H0593: 1, H0690: 1, H0684: 1, H0579: 1, S0044: 1, H0631: 1, S0028: 1, L0742: 1, L0748: 1, L0746: 1, S0031: 1, S0434: 1, H0667: 1, S0192: 1, S0276: 1, H0542: 1, H0422: 1, H0506: 1 and	
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HVVCV41	HVVCV41R	2142	2 - 310	4317	Glu-1 to Gln-10, Val-74 to Arg-83.	L0600: 1.			
HVVCV68	HVVCV68R	2143	2 - 244	4318	Pro-12 to Ser-18, Pro-25 to Pro-30, Ala-62 to Ser-70.				
HVVCW75	HVVCW75R	2144	3 - 410	4319	Met-22 to Asp-27, Cys-43 to Trp-50, Asp-79 to Trp-93, Glu-124 to Glu-136.	L0794: 5, H0617: 4, H0486: 3, L0800: 3, L0764: 3, H0672: 3, L0751: 3, S0360: 2, H0188: 2, S0022: 2, L0769: 2, L0803: 2, L0809: 2, L0665: 2, L0361: 2, H0556: 1, H0583: 1, H0657: 1, S0418: 1, L0005: 1, S0354: 1, S0408: 1, S0045: 1, S0046: 1, S6014: 1, H0587: 1, H0333: 1, H0559: 1, H0596: 1, H0673: 1, H0616: 1, H0494: 1, L0761: 1, L0662: 1, L0651: 1, L0659: 1, L0382: 1, L5622: 1, L0663: 1, H0690: 1, H0670: 1, S0152: 1, S0390: 1, L0747: 1, L0777: 1, L0731: 1, L0758: 1, S0436: 1,			

							L0592: 1, L0601: 1 and S0424: 1.		
HVVCX17	HVVCX17R	2145	124 - 297	4320	Asp-1 to Pro-10.		H0052: 15, H0585: 12, L0740: 12, L0439: 11, L0758: 10, L0754: 9, L5286: 8, L0748: 8, H0141: 7, L0666: 7, H0521: 7, L0742: 7, L0749: 7, H0556: 6, S0222: 6, H0494: 6, L0743: 6, L0751: 6, L0757: 6, H0253: 5, T0010: 5, L0803: 5, L0731: 5, H0657: 4, S0360: 4, S0408: 4, S0046: 4, S0278: 4, H0618: 4, S0049: 4, H0617: 4, H0623: 4, S0038: 4, L0764: 4, L0766: 4, L0805: 4, L0809: 4, L0744: 4, L0746: 4, S0040: 3, S0212: 3, L0005: 3, H0441: 3, H0333: 3, H0013: 3, H0599: 3, H0009: 3, H0242: 3, H0644: 3, H0038: 3, H0551: 3, H0412: 3, T0042: 3, L0769: 3, L0804: 3, L0774: 3,		

L0776: 3, L0792: 3, L0663: 3, L0438: 3, S0044: 3, S0406: 3, S0028: 3, L0745: 3, L0779: 3, L0752: 3, L0362: 3, S6024: 2, H0733: 2, S0132: 2, H0261: 2, H0455: 2, H0438: 2, H0497: 2, H0041: 2, L0471: 2, H0620: 2, H0024: 2, H0051: 2, H0266: 2, H0284: 2, S0250: 2, T0006: 2, S0366: 2, S0036: 2, H0591: 2, S0344: 2, L0369: 2, L5623: 2, L0791: 2, L0665: 2, S0374: 2, H0520: 2, S0126: 2, H0672: 2, H0436: 2, L0741: 2, L0747: 2, L0750: 2, L0756: 2, L0759: 2, S0436: 2, L0591: 2, L0592: 2, L0485: 2, L0608: 2, L0593: 2, L0595: 2, H0667: 2, H0423: 2, L0718: 2, H0149: 1, H0265: 1, H0139: 1, H0716: 1, S0114: 1,					
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		T0049: 1, S0218: 1, H0341: 1, S0001: 1, H0484: 1, H0483: 1, H0254: 1, H0255: 1, H0662: 1, H0306: 1, H0638: 1, S0418: 1, S0420: 1, S0356: 1, S0442: 1, S0358: 1, S0444: 1, H0637: 1, S0007: 1, S0045: 1, S0476: 1, H0619: 1, H0393: 1, S6026: 1, L0717: 1, H0370: 1, H0586: 1, H0587: 1, H0574: 1, T0040: 1, H0069: 1, S0280: 1, H0036: 1, S0010: 1, H0390: 1, H0318: 1, H0581: 1, H0234: 1, T0103: 1, H0546: 1, H0545: 1, H0046: 1, N0006: 1, H0569: 1, H0081: 1, H0050: 1, H0047: 1, N0008: 1, S0388: 1, H0107: 1, H0083: 1, H0375: 1, H0188: 1, H0428: 1, H0039: 1, H0424: 1, H0213: 1, L0142: 1, H0181: 1, H0606: 1,	
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HVVCX46	HVVCX46R	2146	35 - 418	4321	Arg-9 to Ile-31, Gln-38 to Lys-43, Gln-87 to Ala-92.	H0674: 1, H0135: 1, H0040: 1, H0616: 1, H0087: 1, H0264: 1, H0488: 1, H0268: 1, H0059: 1, H0100: 1, L0351: 1, H0334: 1, H0633: 1, S0142: 1, H0538: 1, S0426: 1, L0640: 1, L0637: 1, L5575: 1, L0800: 1, L0648: 1, L0794: 1, L0655: 1, L0657: 1, L0659: 1, L0542: 1, L0783: 1, L0382: 1, L5622: 1, H0144: 1, H0723: 1, H0519: 1, H0690: 1, H0435: 1, S0330: 1, H0539: 1, S0454: 1, S0404: 1, H0555: 1, S3014: 1, L0780: 1, L0755: 1, H0445: 1, H0595: 1, S0434: 1, L0588: 1, L0605: 1, L0366: 1, H0136: 1, H0542: 1, H0543: 1, H0422: 1, H0506: 1 and H0008: 1.		
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HVVCY29	HVVCY29R	2147	2 - 775	4322	Ser-116 to Pro-128. Ser-8 to Ser-14, Asn-68 to Tyr-74, His-80 to Val-91, Glu-141 to Phe-147, Ala-159 to Ser-170, Asp-184 to Gly-199.			
HVVCY55	HVVCY55R	2148	2 - 697	4323	Pro-60 to Gly-72, Gln-89 to Ser-94, Pro-121 to Pro-132, Pro-146 to Pro-166.			
HVVCY60	HVVCY60R	2149	1 - 588	4324	Lys-30 to Glu-36, Lys-55 to Tyr-68, Ile-82 to Asp-87, Trp-115 to Ser-125, Pro-139 to Pro-146.			
HVVCY62	HVVCY62R	2150	3 - 620	4325	Ala-17 to Lys-23, Leu-25 to Ala-35, Gln-71 to Ala-76, Tyr-79 to His-85, Pro-112 to Gly-120, Gly-149 to Tyr-165, Lys-175 to His-181.			
HVVCY75	HVVCY75R	2151	139 - 276	4326				
HVVCY77	HVVCY77R	2152	2 - 598	4327	Glu-179 to Ala-184.			
HVVCZ18	HVVCZ18R	2153	423 - 542	4328				
HVVCZ50	HVVCZ50R	2154	139 - 291	4329				H0412: 26, S0360: 11, S0126: 8, H0014: 7, H0628: 6, H0413: 6,

	S0212: 5, S0045: 5, H0411: 5, H0486: 4, S0003: 4, S0210: 4, H0672: 4, L0731: 4, S0192: 4, S0418: 3, S0046: 3, H0169: 3, L0649: 3, S0040: 2, H0671: 2, H0662: 2, S0358: 2, S0376: 2, S0132: 2, H0635: 2, H0098: 2, H0544: 2, H0546: 2, H0545: 2, H0242: 2, H0015: 2, S0250: 2, H0551: 2, H0268: 2, H0494: 2, L0659: 2, L0517: 2, L0809: 2, H0689: 2, S0028: 2, H0506: 2, H0170: 1, H0171: 1, H0295: 1, H0661: 1, H0639: 1, H0574: 1, H0599: 1, L0022: 1, H0108: 1, H0042: 1, H0004: 1, H0044: 1, H0355: 1, H0510: 1, H0266: 1, S0318: 1, S0316: 1, S0022: 1, H0328: 1, H0039: 1, H0622: 1, H0634: 1, H0488: 1, H0623: 1,	
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HVVDC09	HVVDC09R	2155	161 - 313	4330		L0564: 1, H0509: 1, L0764: 1, L0662: 1, L0653: 1, H0144: 1, S0374: 1, L0565: 1, H0670: 1, S0380: 1, H0518: 1, H0555: 1, L0748: 1, L0740: 1, L0751: 1, L0754: 1, L0749: 1, L0777: 1, L0362: 1 and S0196: 1.		
						L0777: 17, L0439: 13, L0731: 9, H0521: 8, S0003: 5, H0547: 5, L0759: 5, L0803: 4, L0748: 4, L0750: 4, L0752: 4, L0351: 3, H0560: 3, L0751: 3, L0749: 3, L0757: 3, H0543: 3, S0134: 2, L0415: 2, S0116: 2, S0358: 2, S0376: 2, H0318: 2, H0581: 2, H0421: 2, H0328: 2, H0090: 2, L0646: 2, L0662: 2, L0768: 2, L0766: 2, S0328: 2, H0215: 2, S0406: 2, L0744: 2, L0608: 2, S0192: 2, H0170: 1, H0171: 1, H0556: 1,		

1463

HVVDH44	HVVDH44R	2156	2 - 580	4331				H0593: 1, S0126: 1, H0660: 1, H0648: 1, H0672: 1, S0330: 1, H0539: 1, S0152: 1, S0037: 1, L0747: 1, L0605: 1, S0011: 1, H0423: 1, H0422: 1 and H0506: 1.		
HVVDM23	HVVDM23R	2157	3 - 545	4332						
HVVDM31	HVVDM31R	2158	3 - 446	4333						
HVVDM45	HVVDM45R	2159	1 - 390	4334				L0742: 10, H0144: 6, H0265: 5, S0116: 4, S0046: 4, S0222: 4, H0556: 3, H0250: 3, H0052: 3, S0027: 3, L0595: 3, S0212: 2, H0306: 2, S0358: 2, H0013: 2, H0618: 2, H0124: 2, H0100: 2, S0053: 2, H0660: 2, S0330: 2, S3012: 2, L0748: 2, L0439: 2, L0745: 2, L0757: 2, H0445: 2, S0342: 1, H0484: 1, H0638: 1, S0007: 1, H0393: 1, H0437: 1, H0549: 1, H0438: 1, H0486: 1, H0253: 1, H0390: 1,		

HVVDM53	HVVDM53R	2160	2 - 241	4335					H0544: 1, H0046: 1, H0009: 1, H0023: 1, N0007: 1, T0010: 1, H0188: 1, H0687: 1, S0003: 1, H0030: 1, S0364: 1, L0455: 1, S0366: 1, H0090: 1, H0038: 1, H0551: 1, H0412: 1, H0059: 1, S0038: 1, H0130: 1, H0641: 1, S0142: 1, S0002: 1, H0517: 1, L0643: 1, L0771: 1, L0794: 1, L0766: 1, L0775: 1, L0654: 1, L0655: 1, L0352: 1, S0008: 1, H0435: 1, H0659: 1, H0658: 1, H0672: 1, H0521: 1, H0522: 1, S0044: 1, H0576: 1, L0779: 1, L0605: 1, L0593: 1, S0026: 1, H0667: 1, S0276: 1, S0196: 1, H0542: 1, H0423: 1 and H0506: 1.		
HVVDM83	HVVDM83R	2161	204 - 524	4336					L0766: 9, L0665: 7, L0659: 6, L0761: 5, L0662: 4, L0776: 4.		

	S0418: 3, S0007: 3, H0559: 3, H0457: 3, H0617: 3, L0800: 3, L0751: 3, L0750: 3, H0309: 2, L0769: 2, L0667: 2, L0794: 2, L0664: 2, L0756: 2, L0779: 2, L0777: 2, L0758: 2, H0543: 2, H0556: 1, S0402: 1, S0114: 1, H0650: 1, H0656: 1, S0116: 1, H0484: 1, H0254: 1, H0255: 1, S0420: 1, S0354: 1, S0358: 1, H0676: 1, L0717: 1, S0222: 1, H0614: 1, L0622: 1, H0486: 1, H0069: 1, H0253: 1, H0581: 1, H0024: 1, H0051: 1, H0100: 1, H0494: 1, H0625: 1, H0561: 1, S0144: 1, L0374: 1, L0771: 1, L0773: 1, L0768: 1, L0387: 1, L0774: 1, L0653: 1, L0657: 1, L0384: 1, L0789: 1, L0790: 1, L0792: 1, H0684: 1, H0659: 1,	
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HVVDN29	HVVDN29R	2162	2 - 685	4337	Asp-50 to Gly-55.	H0670: 1, H0672: 1, H0521: 1, S0027: 1, L0741: 1, L0754: 1, L0749: 1, L0780: 1, H0422: 1 and H0352: 1.		
HVVDN77	HVVDN77R	2163	1 - 594	4338				
HVVDP70	HVVDP70R	2164	40 - 354	4339	Lys-24 to Glu-34, Pro-47 to Arg-56, Tyr-77 to Pro-90.			
HVVDQ46	HVVDQ46R	2165	106 - 423	4340	Lys-12 to Thr-18, Glu-20 to Lys-26, Lys-83 to Lys-90.	H0551: 9, L0662: 9, L0471: 8, L0754: 7, L0766: 6, L0666: 6, S0358: 5, L0663: 5, L0750: 5, L0779: 5, S0007: 4, H0373: 4, L0770: 4, L0803: 4, L0777: 4, L0752: 4, L0757: 4, L0758: 4, S0114: 3, S0212: 3, H0673: 3, H0412: 3, L0769: 3, L0805: 3, L0776: 3, L0809: 3, S0126: 3, L0740: 3, H0506: 3, H0657: 2, S0116: 2, S0356: 2, S0360: 2, H0411: 2, H0390: 2, H0318: 2, S0214: 2, H0644: 2, H0617: 2, H0494: 2,		

	L0761: 2, L0773: 2, L0649: 2, L0774: 2, L0653: 2, L0529: 2, H0435: 2, L0749: 2, L0731: 2, L0588: 2, L0608: 2, S0026: 2, H0543: 2, H0294: 1, H0650: 1, H0341: 1, S0354: 1, S0376: 1, H0580: 1, H0339: 1, H0208: 1, S0132: 1, H0640: 1, H0369: 1, H0438: 1, H0574: 1, H0486: 1, H0101: 1, H0427: 1, H0097: 1, H0575: 1, H0037: 1, H0230: 1, H0052: 1, L0040: 1, H0544: 1, H0545: 1, H0086: 1, H0009: 1, S0024: 1, H0510: 1, S0250: 1, H0428: 1, H0166: 1, H0102: 1, H0560: 1, S0294: 1, H0509: 1, S0150: 1, H0633: 1, H0647: 1, L0631: 1, L0646: 1, L0764: 1, L0804: 1, L0806: 1, L0606: 1, L0657: 1, L0659: 1, L0636: 1,	
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HVVDQ49	HVVDQ49R	2166	2 - 103	4341			L0783: 1, L0382: 1, L0789: 1, L0664: 1, L0665: 1, H0593: 1, H0690: 1, H0682: 1, H0684: 1, H0648: 1, H0672: 1, H0539: 1, H0521: 1, H0555: 1, H0478: 1, L0609: 1, L0744: 1, L0748: 1, L0747: 1, L0755: 1, H0445: 1, H0343: 1, L0581: 1, H0653: 1 and H0352: 1.		
							H0521: 7, H0052: 6, H0622: 5, L0646: 5, H0617: 4, L0662: 4, L0659: 4, H0556: 3, H0341: 3, H0484: 3, S0358: 3, H0580: 3, H0551: 3, L0369: 3, L0657: 3, L0664: 3, H0670: 3, S0328: 3, H0445: 3, L0603: 3, H0583: 2, S0212: 2, S0376: 2, S0007: 2, S0045: 2, S0046: 2, S0132: 2, H0438: 2, H0586: 2, H0486: 2, H0618: 2, S0474: 2, S0049: 2, H0545: 2,		

HVVD S12	HVVD S12R	2167	1 - 732	4342				H0264: 1, H0059: 1, H0100: 1, S0448: 1, S0450: 1, S0440: 1, H0646: 1, S0144: 1, S0002: 1, L0762: 1, L0640: 1, L0639: 1, L0637: 1, L0372: 1, L0643: 1, L0771: 1, L0773: 1, L0648: 1, L0386: 1, L0774: 1, L0775: 1, L0375: 1, L0376: 1, L0378: 1, L0806: 1, L0653: 1, L0776: 1, L0782: 1, L0383: 1, L0791: 1, H0693: 1, H0547: 1, H0519: 1, H0435: 1, H0660: 1, H0672: 1, S0330: 1, H0696: 1, H0134: 1, H0478: 1, S0028: 1, L0743: 1, L0745: 1, L0747: 1, L0749: 1, L0731: 1, S0436: 1, L0593: 1, H0667: 1, H0543: 1, — H0423: 1 and H0352: 1.		
HVVD S21	HVVD S21R	2168	2 - 730	4343				AR104: 17, AR089: 10, AR096: 10, AR061: 8, AR060: 4, AR055:		

HVVD S35	HVVDS35R	2169	2 - 640	4344				S0412: 22, L0662: 19, L0777: 14, S0010: 11, S0222: 9, S6028: 9, L0750: 9, T0010: 8, L0659: 8, L0747: 8, L0756: 8, L0663: 7, L0439: 7, H0051: 6, L0518: 6, L0754: 6, L0752: 6, S0280: 5, H0575: 5, S0358: 4, S0346: 4, L0753: 4, H0170: 3, H0662: 3, S0360: 3, H0427: 3, L0471: 3, H0373: 3, L0638: 3, L0637: 3, L0764: 3, L0774: 3, L0809: 3, L0666: 3, S0310: 3, H0672: 3, H0696: 3, L0731: 3, H0506: 3, H0713: 2, S0408: 2, H0411: 2, H0455: 2, H0574: 2, S0414: 2, H0486: 2, H0036: 2, S0049: 2, H0052: 2, H0327: 2, H0687: 2, H0428: 2, H0553: 2, H0644: 2, H0038: 2, L0520: 2,		
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	L0762: 2, L0770: 2, L0653: 2, L0517: 2, S0044: 2, L0442: 1, H0583: 1, L0443: 1, S0110: 1, S0282: 1, S0400: 1, H0661: 1, S0348: 1, S0356: 1, S0444: 1, H0329: 1, S0007: 1, H0619: 1, S6026: 1, S0300: 1, L0717: 1, S6022: 1, H0550: 1, H0592: 1, H0587: 1, H0599: 1, H0042: 1, H0590: 1, H0318: 1, H0309: 1, H0545: 1, H0563: 1, H0564: 1, H0123: 1, H0019: 1, S0050: 1, L0163: 1, S0388: 1, H0356: 1, H0328: 1, H0688: 1, H0039: 1, T0023: 1, H0031: 1, H0111: 1, H0169: 1, S0364: 1, L0455: 1, H0135: 1, H0163: 1, T0067: 1, T0069: 1, T0004: 1, H0100: 1, S0112: 1, L0370: 1, L0598: 1, L0769: 1, L0630: 1, L0800: 1,	
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HVVDT25	HVVDT25R	2170	231 - 353	4345	Thr-35 to Asn-41.	L0648: 1, L0363: 1, L0768: 1, L0649: 1, L0803: 1, L0775: 1, L0375: 1, L0651: 1, L0784: 1, L0523: 1, L0805: 1, L0776: 1, L0527: 1, L0657: 1, L0635: 1, L0783: 1, L0789: 1, L0532: 1, L0664: 1, H0691: 1, T0068: 1, S0148: 1, H0693: 1, H0520: 1, H0593: 1, H0689: 1, H0684: 1, S0330: 1, S0380: 1, S0174: 1, H0555: 1, L0612: 1, L0743: 1, L0748: 1, L0751: 1, L0749: 1, L0779: 1, L0759: 1, L0689: 1, S0434: 1, L0604: 1, L0366: 1, S0106: 1 and S0021: 1.
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HVVDT29	HVVDT29R	2171	109 - 471	4346	Glu-11 to Arg-17, Arg-66 to Pro-79, Ser-104 to Gln-112, Ser-116 to Ser-125.	L0748: 11, L0758: 10, L0747: 8, L0439: 7, H0144: 6, L0805: 5, L0662: 4, H0341: 3, H0052: 3, L0794: 3, L0803: 3, L0809: 3, H0672: 3, L0741: 3, L0752: 3, H0619: 2, S0222: 2, H0013: 2, H0014: 2, H0266: 2, H0553: 2, L0455: 2, H0591: 2, L0770: 2, L0646: 2, L0764: 2, L0666: 2, L0665: 2, H0547: 2, S0126: 2, L0596: 2, L0589: 2, L0605: 2, H0543: 2, H0423: 2, H0624: 1, H0556: 1, H0686: 1, S0040: 1, H0717: 1, H0671: 1, S0476: 1, L0717: 1, H0411: 1, H0586: 1, H0333: 1, H0574: 1, L0021: 1, H0575: 1, H0618: 1, S0010: 1, H0318: 1, H0544: 1, H0009: 1, H0050: 1, L0471: 1, L0163: 1, S6028: 1.		
HVVDT44	HVVDT44R	2172	2 - 460	4347				

HVVDU49	HVVDU49R	2173	328 - 600	4348	Asn-1 to Leu-6.	H0672: 2 and S6028: 1.
						S0022: 1, S0214: 1, H0628: 1, L0456: 1, S0366: 1, S0036: 1, H0090: 1, H0038: 1, H0040: 1, H0551: 1, H0264: 1, H0059: 1, S0112: 1, T0041: 1, H0647: 1, H0652: 1, S0426: 1, L0763: 1, L0638: 1, L0796: 1, L0630: 1, L0768: 1, L0649: 1, L0774: 1, L0378: 1, L0653: 1, L0657: 1, L0659: 1, L0783: 1, L0647: 1, L0791: 1, L0663: 1, L0664: 1, S0053: 1, H0519: 1, H0539: 1, H0696: 1, S0406: 1, H0555: 1, H0627: 1, L0744: 1, L0754: 1, L0746: 1, L0759: 1, S0031: 1, L0584: 1, L0608: 1, L0594: 1, S0026: 1, H0665: 1, H0136: 1, H0216: 1 and H0422: 1.

HVVDW02	HVVDW02R	2174	3 - 266	4349				
HVVDW61	HVVDW61R	2175	2 - 502	4350	Ser-1 to Pro-9.			
HVVDX40	HVVDX40R	2176	294 - 455	4351				
HVVDX90	HVVDX90R	2177	14 - 511	4352				
HWHHD07	HWHHD07R	2178	2 - 391	4353				
HWLAC51	HWLAC51R	2179	11 - 178	4354				
HWLJR51	HWLJR51R	2180	167 - 343	4355				
L0766: 3, H0651: 2, H0686: 1, H0656: 1, S0358: 1, L0773: 1, L0775: 1, L0657: 1, L0809: 1, L0792: 1 and L0731: 1.								
HWLME48	HWLME48R	2181	3 - 197	4356	Lys-1 to Asp-8, Lys-41 to Gln-50.			
S0152: 7, L0601: 4, H0013: 3, H0551: 3, H0264: 3, H0521: 3, S0046: 2, H0050: 2, H0266: 2, S0022: 2, H0031: 2, H0644: 2, H0494: 2, H0519: 2, H0556: 1, S0040: 1, T0049: 1, S0001: 1, S0356: 1, S0354: 1, S0376: 1, S0045: 1, S0132: 1, H0549: 1,								

HWLVY65	HWLVY65R	2182	209 - 373	4357				H0550: 1, H0486: 1, T0039: 1, T0040: 1, S0280: 1, H0042: 1, H0575: 1, T0082: 1, H0421: 1, L0471: 1, H0373: 1, H0051: 1, H0355: 1, H0615: 1, H0622: 1, L0483: 1, S0364: 1, H0591: 1, H0268: 1, H0561: 1, S0210: 1, L0364: 1, L0649: 1, L0538: 1, L0659: 1, S0428: 1, H0144: 1, L0602: 1, S0390: 1, S0028: 1, L0758: 1, S0434: 1, L0485: 1 and H0543: 1.		
HWMB35	HWMB35R	2183	1 - 435	4358	Cys-6 to Ser-12, Gln-27 to Glu-32, Arg-52 to Arg-67, Asp-140 to Asp-145.					
HWNFO25	HWNFO25R	2184	43 - 210	4359	Thr-26 to Ile-34.					

[0040] The first column in Table 1 provides a unique "Clone ID NO:Z" for a cDNA clone related to each contig sequence disclosed in Table 1. This clone ID references the cDNA clone which contains at least the 5' most sequence of the assembled contig, and at least a portion of SEQ ID NO:X was determined by directly sequencing the referenced clone. The reference clone may have more sequence than described in the sequence listing or the clone may have less. In the vast majority of cases, however, the clone is believed to encode a full-length polypeptide. In the case where a clone is not full-length, a full-length cDNA can be obtained by methods known in the art and/or as described elsewhere herein.

[0041] The second column in Table 1 provides a unique "Contig ID" identification for each contig sequence. The third column provides the "SEQ ID NO:X" identifier for each of the ovarian associated contig polynucleotide sequences disclosed in Table 1. The fourth column, "ORF (From-To)", provides the location (i.e., nucleotide position numbers) within the polynucleotide sequence "SEQ ID NO:X" that delineate the preferred open reading frame (ORF) shown in the sequence listing and referenced in Table 1, column 5, as SEQ ID NO:Y. Where the nucleotide position number "To" is lower than the nucleotide position number "From", the preferred ORF is the reverse complement of the referenced polynucleotide sequence.

[0042] The fifth column in Table 1 provides the corresponding SEQ ID NO:Y for the polypeptide sequence encoded by the preferred ORF delineated in column 4. In one embodiment, the invention provides an amino acid sequence comprising, or alternatively consisting of, a polypeptide encoded by the portion of SEQ ID NO:X delineated by "ORF (From-To)". Also provided are polynucleotides encoding such amino acid sequences and the complementary strand thereto.

[0043] Column 6 in Table 1 lists residues comprising epitopes contained in the polypeptides encoded by the preferred ORF (SEQ ID NO:Y), as predicted using the algorithm of Jameson and Wolf, (1988) Comp. Appl. Biosci. 4:181-186. The Jameson-Wolf antigenic analysis was performed using the computer program PROTEAN (Version 3.11 for the Power MacIntosh, DNASTAR, Inc., 1228 South Park Street Madison, WI). In specific embodiments, polypeptides of the invention comprise, or alternatively consist of, at least one, two, three, four, five or more of the predicted epitopes as described in Table 1. It

will be appreciated that depending on the analytical criteria used to predict antigenic determinants, the exact address of the determinant may vary slightly.

[0044] Column 7 in Table 1 provides an expression profile and library code: count for each of the contig sequences (SEQ ID NO:X) disclosed in Table 1, which can routinely be combined with the information provided in Table 4 and used to determine the normal or diseased tissues, cells, and/or cell line libraries which predominantly express the polynucleotides of the invention. The first number in column 7 (preceding the colon), represents the tissue/cell source identifier code corresponding to the code and description provided in Table 4. For those identifier codes in which the first two letters are not "AR", the second number in column 7 (following the colon) represents the number of times a sequence corresponding to the reference polynucleotide sequence was identified in the tissue/cell source. Those tissue/cell source identifier codes in which the first two letters are "AR" designate information generated using DNA array technology. Utilizing this technology, cDNAs were amplified by PCR and then transferred, in duplicate, onto the array. Gene expression was assayed through hybridization of first strand cDNA probes to the DNA array. cDNA probes were generated from total RNA extracted from a variety of different tissues and cell lines. Probe synthesis was performed in the presence of ³³P dCTP, using oligo(dT) to prime reverse transcription. After hybridization, high stringency washing conditions were employed to remove non-specific hybrids from the array. The remaining signal, emanating from each gene target, was measured using a Phosphorimager. Gene expression was reported as Phosphor Stimulating Luminescence (PSL) which reflects the level of phosphor signal generated from the probe hybridized to each of the gene targets represented on the array. A local background signal subtraction was performed before the total signal generated from each array was used to normalize gene expression between the different hybridizations. The value presented after "[array code]:" represents the mean of the duplicate values, following background subtraction and probe normalization. One of skill in the art could routinely use this information to identify normal and/or diseased tissue(s) which show a predominant expression pattern of the corresponding polynucleotide of the invention or to identify polynucleotides which show predominant and/or specific tissue and/or cell expression. The sequences disclosed herein have been determined to be

predominantly expressed in ovarian tissues, including normal and diseased ovarian tissues (See Table 1, column 7 and Table 4).

[0045] Column 8 in Table 1 provides a chromosomal map location for certain polynucleotides of the invention. Chromosomal location was determined by finding exact matches to EST and cDNA sequences contained in the NCBI (National Center for Biotechnology Information) UniGene database. Each sequence in the UniGene database is assigned to a "cluster"; all of the ESTs, cDNAs, and STSs in a cluster are believed to be derived from a single gene. Chromosomal mapping data is often available for one or more sequence(s) in a UniGene cluster; this data (if consistent) is then applied to the cluster as a whole. Thus, it is possible to infer the chromosomal location of a new polynucleotide sequence by determining its identity with a mapped UniGene cluster.

[0046] A modified version of the computer program BLASTN (Altschul et al., J. Mol. Biol. 215:403-410 (1990), and Gish et al., Nat. Genet. 3:266-272 (1993)) was used to search the UniGene database for EST or cDNA sequences that contain exact or near-exact matches to a polynucleotide sequence of the invention (the 'Query'). A sequence from the UniGene database (the 'Subject') was said to be an exact match if it contained a segment of 50 nucleotides in length such that 48 of those nucleotides were in the same order as found in the Query sequence. If all of the matches that met this criteria were in the same UniGene cluster, and mapping data was available for this cluster, it is indicated in Table 1 under the heading "Cytologic Band". Where a cluster had been further localized to a distinct cytologic band, that band is disclosed; where no banding information was available, but the gene had been localized to a single chromosome, the chromosome is disclosed.

[0047] Once a presumptive chromosomal location was determined for a polynucleotide of the invention, an associated disease locus was identified by comparison with a database of diseases which have been experimentally associated with genetic loci. The database used was the Morbid Map, derived from OMIM™ (*supra*). If the putative chromosomal location of a polynucleotide of the invention (Query sequence) was associated with a disease in the Morbid Map database, an OMIM reference identification number was noted in column 9, Table 1, labeled "OMIM Disease Reference(s)". Table 5 is a key to the OMIM reference identification numbers (column 1), and provides a description of the associated disease in Column 2.

TABLE 2

Clone ID NO:Z	Contig ID:	SEQ ID NO: X	Analysis Method	PFam/NR Description	PFam/NR Accession Number	Score/ Percent Identity	NT From	NT To
HOVCD34	396327	11	blastx.2	(AK000844) unnamed protein product [Homo sapiens]	dbj BAA91396.1	58%	319	167
HEBGD58	498281	12	blastx.2	eggshell protein - fluke (Schistosoma haematobium) (subclone 1)	pir A44805 A44805	74%	3	98
HETCD42	533532	13	blastx.2	actin capping protein alpha subunit [Homo sapiens]	gb AAA88848.1	100%	90	947
HTXKC18	535854	14	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj BAA91205.1	62%	873	676
HLD RK20	553765	15	blastx.2	complement factor B [Homo sapiens]	emb CAA51389.1	91%	150	1283
H2MBD33	558474	16	blastx.2	NBR2 PROTEIN (NEXT TO BRCA1 GENE 2 PROTEIN).	sp O15453 NBR2_H UMAN	100%	138	290
HSYBX61	558708	17	blastx.2	N-cadherin [Homo sapiens]	gb AAA03236.1	98%	3	515
HELHC03	562745	18	blastx.2	(AF118082) PRO1902 [Homo sapiens]	gb AAF22026.1 AF1 18094_21	67% 81%	1063 1154	905 1089
HOFMP70	585385	19	blastx.2	precursor polypeptide	emb CAA33261.1	75%	120	347

				(AA -21 to 782) [Homo sapiens]						
HSKNZ25	585675	20	blastx.2	unknown protein [Homo sapiens]	gb AAA88038.1	63%	522	686		
HDPFK39	588869	21	blastx.2	leukocyte adhesion glycoprotein precursor [Homo sapiens]	gb AA59491.1	99% 90%	79 681	687 746		
HL1AB07	638220	22	blastx.2	(AF151884) CGI-126 protein [Homo sapiens]	gb AAD34121.1 AF1 51884.1	100% 91%	2 463	466 498		
HHGAS83	654868	23	blastx.2	(AF044671) MM46 [Homo sapiens]	gb AAD02337.1	100%	133	393		
HTSGU37	704405	24	blastx.2	(AF019406) collagen type IX alpha 2 chain [Homo sapiens]	gb AAC33512.1	100% 50% 51% 40% 51% 52% 53% 47% 54% 46% 52% 47% 48% 38% 48% 50% 46% 37% 49%	117 192 189 12 192 195 192 156 189 156 195 195 192 15 192 195 192 15 195	434 434 431 434 431 431 431 431 431 431 431 431 431 431 431 431 434 431 431 431 431		

							431
						195	431
						201	431
						24	431
						189	431
						189	431
						180	431
						195	434
						192	425
						195	461
						195	434
						195	413
						45	395
						192	365
						195	431
						192	347
						395	502
						395	490
						383	481
						401	472
						401	481
						383	481
						395	481
						383	481
						383	481
						380	502
						422	487
						419	457
						331	432
						430	218
						249	133
						48%	
						50%	
						37%	
						48%	
						48%	
						44%	
						46%	
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						38%	
						43%	
						40%	
						38%	
						33%	
						47%	
						61%	
						29%	
						52%	
						37%	

H2LAN34	705692	25	blastx.2	unnamed protein product [unidentified]	emb CAB42187.1	38% 50% 32% 64%	240 471 501 14	100 418 421 199
HPMBZ40	711500	26	blastx.2	fusion protein: ubiquitin (bases 43_513); ribosomal protein S27a (bases 217_532) [Rattus norvegicus]	emb CAA57432.1	87%	402	563
HL YEP52	732342	27	blastx.2	tyrosine kinase activator protein 1 (TKA-1) [Homo sapiens]	emb CAA90511.1	95% 92% 51% 35% 32% 38%	101 585 149 619 619 775	580 1007 547 1008 1008 846
HTTEC47	745343	28	blastx.2	unknown protein [Homo sapiens]	gb AAA88038.1	73% 77% 63%	696 229 902	232 20 627
HOFMO90	746416	29	blastx.2	(AF046001) zinc finger transcription factor [Homo sapiens]	gb AAC78561.1	89% 70%	122 348	367 440
HCHND34	762806	30	blastx.2	cytochrome oxidase subunit III [Phoca vitulina]	emb CAA45263.1	81% 86%	12 500	497 778

HAMGI86	785328	31	blastx.2	unnamed protein product [unidentified]	emb CAB42212.1	91%	424	609
HLWCN67	794213	32	blastx.2	(AK014485) putative [Mus musculus]	dbj BAB29387.1	94%	611	667
HOFAC09	806819	33	blastx.2	acidic ribosomal phosphoprotein (P0) [Homo sapiens]	gb AAA36470.1	80%	386	631
HRDEL61	824886	34	blastx.2	X-linked retinopathy protein [C-terminal, clone XEH.8c] [human, Peptide Partial, 100 aa] [Homo sapiens]	gb AAB26149.1	87% 52%	42 5	812 55
HDPOR60	828176	35	blastx.2	(AF151799) CGI-40 protein [Homo sapiens]	gb AAD34036.1 AF151799 1	67% 45%	808 644	632 576
HPRTS71	828574	36	blastx.2	rTSbeta [Homo sapiens]	emb CAA61761.1	96% 82% 100%	8 8 45	1867 1867 458
HOHBI90	828862	37	blastx.2	tyrosine kinase receptor [Homo sapiens]	gb AAA61243.1	90% 63% 34% 53%	193 159 268 375	417 281 396 419
HOHAL47	828872	38	blastx.2	pericentriol material 1 [Homo sapiens]	gb AAA60120.1	88%	328	879
HYASE58	829298	39	blastx.2	O-6-methylguanine-DNA methyltransferase [Homo sapiens]	gb AAA59594.1	99%	74	694
HKAAH95	829958	40	blastx.2	ribosomal protein L22	emb CAA55204.1	70%	41	418

HTTIQ02	829981	41	blastx.2	[Rattus norvegicus] activating transcription factor 3 [Homo sapiens]	gb AAA20506.1	96%	44	391
HWACG9 1	830195	42	blastx.2	heat shock protein 90, hsp90 [rats, brain, Peptide, 724 aa] [Rattus sp.]	gb AAB23369.1	82% 93% 37% 76%	119 88 60 573	610 132 170 611
HUFBX52	830497	43	blastx.2	tenascin X [Homo sapiens]	gb AAB47488.1 AAB 47488	99% 100% 29% 26% 30% 27% 29% 28% 25% 27% 28% 28% 27% 28% 29% 24% 24% 32% 29% 24% 30% 32%	2 1525 20 20 20 17 20 17 20 8 2 14 20 17 20 365 20 413 11 2 20 17	1525 1785 1255 1114 1033 991 988 934 1096 898 973 856 892 712 712 1150 973 946 907 991 589 589

							29%	20	712
							27%	20	601
							27%	2	856
							31%	716	1111
							25%	176	1012
							30%	176	562
							25%	437	1096
							29%	92	565
							25%	521	1135
							23%	437	1045
							23%	434	1096
							20%	488	1231
							25%	860	1141
							22%	557	1111
							25%	860	1153
							24%	557	1309
							28%	809	1135
							20%	641	1117
							27%	437	1021
							39%	437	604
							36%	1487	1690
							27%	557	1096
							28%	1487	1684
							23%	788	1135
							22%	809	1309
							30%	1487	1684
							33%	638	877
							29%	35	331
							23%	455	1045
							28%	1487	1684

HWLJE49	831453	44	blastx.2	2A9 peptide [Homo sapiens]	gb AAA35886.1	27%	1487	1684
HLQBT44	832454	45	blastx.2	precursor polypeptide [Homo sapiens]	emb CAA28169.1	30%	622	825
HSLGG58	833088	46	blastx.2	(AF096304) putative sterol reductase SR-1	gb AAD09765.1	25%	1487	1684
						37%	1556	1690
						28%	1487	1684
						23%	1487	1690
						27%	316	501
						48%	1110	1190
						30%	962	1150
						64%	1101	1142
						32%	267	404
						26%	52	498
						52%	1607	1663
						32%	1089	1181
						32%	1089	1181
						22%	650	1027
						53%	1398	1436
						60%	1089	1118
						41%	189	257
						29%	118	255
						37%	979	1083
						29%	1024	1146
						35%	361	480
						34%	1050	1175
						98%	46	315
						100%	175	357
						92%	143	181
						100%	134	997
						97%	1018	1305

HCHBQ33	840756	47	blastx.2	[Homo sapiens] (AB005624) rig-analog DNA-binding protein [Sus scrofa]	dbj BAA21510.1	61%	976	1029
HDTMK30	840862	48	blastx.2	cysteine-rich intestinal protein [Homo sapiens]	gb AAB61158.1	100%	123	353
HDPFX64	841088	49	blastx.2	quinone oxidoreductase [Homo sapiens]	gb AAA60239.1	100%	404	1096
HODFG71	843485	50	blastx.2	(AF081114) ORF2 [Mus musculus domesticus]	gb AAC72810.1	29% 34% 50% 41% 34%	1121 591 281 1188 860	834 301 198 1102 717
HCE3I65	844534	51	blastx.2	kinesin-like motor protein KIF1C [Homo sapiens]	gb AAC52117.1	100%	11	172
HSAVH65	847355	52	blastx.2	plasmolipin [Rattus norvegicus]	emb CAA90017.1	48%	11	382
HBXFT41	847647	53	blastx.2	P26s4 [Cricetinae gen. sp.]	gb AAB34132.1	93%	707	805
HBMCM3 8	847821	54	blastx.2	(AF161356) HSPC093 [Homo sapiens]	gb AAF28916.1 AF1 61356_1	55% 71% 59%	406 485 333	266 390 268

HACBO42	849064	55	blastx.2	G-protein coupled receptor, SREB1 - human	pir JC7287 JC7287	63%	534	502
HODBF86	859572	56	blastx.2	(AF123880) gag polyprotein [multiple sclerosis associated retrovirus element]	gb AAD48374.1	57%	3	368
HOABP90	859622	57	blastx.2	(AF089895) cAMP-dependent protein kinase subunit R2 beta [Oryctolagus cuniculus]	gb AAF00037.1	40% 35%	225 542	437 652
HE8UE42	862010	58	blastx.2	(AJ224875) glucosyltransferase [Homo sapiens]	emb CAA12176.1	97%	628	735
HUSJ59	862481	59	blastx.2	(AF070661) HSPC005 [Homo sapiens]	gb AAD20967.1	99%	15	1610
HSSDM07	863515	60	blastx.2	TcD37 homolog [Homo sapiens]	gb AAF04914.1 U67085_1	100%	80	316
HBCBW52	866444	61	blastx.2	(AK00385) unnamed protein product [Homo sapiens]	dbj BAA91131.1	94% 95% 95%	224 647 160	691 1090 225
HOGAS18	867969	62	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj BAA91205.1	69%	1498	1202
HHSDL18	869701	63	blastx.2	(AF118082) PRO1902 [Homo sapiens]	gb AAF22026.1 AF118094_21	79%	508	380
						65% 61% 67%	590 429 317	721 536 427

HLDOG81	874506	65	blastx.2	(AF153191) nm23-H7 [Homo sapiens]	gb AAD34622.1 AF1 53191.1	100%	1232	798
HTXQF81	874608	66	blastx.2	A4 protein [Homo sapiens]	gb AAA35499.1	29%	1208	813
HCRNG90	874787	67	blastx.2	5'-nucleotidase [Homo sapiens]	emb CAA39271.1	100%	173	628
HPWCL64	874891	68	blastx.2	SPIN protein [Homo sapiens]	emb CAA75163.1	98%	156	911
HWLMV6 2	874930	69	blastx.2	(AL137608) hypothetical protein [Homo sapiens]	emb CAB70840.1	93%	44	643
H2MAC06	874931	70	blastx.2	neutrophil gelatinase associated lipocalin [Homo sapiens]	emb CAA58127.1	31%	104	397
HWLRF06	875093	71	blastx.2	GCP170 [Homo sapiens]	dbj BAA23661.1	100%	170	763
HODDO41	875352	72	blastx.2	(AF064604) KE03 protein [Homo sapiens]	gb AAC17109.1	60%	23	373
HCHMQ74	875371	73	blastx.2	(AK001527) unnamed protein product [Homo sapiens]	dbj BAA91741.1	53%	3	383
HT3AI55	875682	74	blastx.2	(AK000219) unnamed protein product [Homo sapiens]	dbj BAA91018.1	80%	350	454
HMVBD68	876052	75	blastx.2	catalase [Campylobacter jejuni]	emb CAA59444.1	97%	3	440
HOCTA74	876487	76	blastx.2	propionyl-CoA carboxylase [Homo sapiens]	emb CAA32763.1	98%	4	504
						85%	207	103
						100%	65	292

HSET05	876686	77	blastx.2	(A270993) homeobox protein [Homo sapiens]	emb CAB65909.1	95%	511	849
HCRQM22	876696	78	blastx.2	hepatocyte nuclear factor-3/fork head homolog 11B [Homo sapiens]	gb AAC51129.1	66%	801	926
HLHTC92	877310	79	blastx.2	neuronal PAS2 [Homo sapiens]	gb AAB47250.1	84%	3	401
H2CAA49	879484	80	blastx.2	(AF053651) cellular apoptosis susceptibility protein [Homo sapiens]	gb AAC35297.1	97%	197	418
HETKQ94	880545	81	blastx.2	(AL132954) putative protein [Arabidopsis thaliana]	emb CAB75750.1	95%	142	201
HOFMO23	882466	82	blastx.2	(AF089745) FK506-binding protein [Homo sapiens]	gb AAC78853.1	32%	482	574
HNTNP58	882787	83	blastx.2	(AF118082) PRO1902 [Homo sapiens]	gb AAF22026.1 AF118094 21	100%	954	2108
HOFNY28	888480	84	blastx.2	AF-1 [Homo sapiens]	gb AAA16955.1	35%	53	838
HE8MQ01	889128	85	blastx.2	(AF118082) PRO1902 [Homo sapiens]	gb AAF22026.1 AF118094 21	23%	1556	2080
HE2RG21	891139	86	blastx.2	peptidylprolyl isomerase [Homo sapiens]	emb CAA37039.1	33%	1155	1298
HHENW77	894855	87	blastx.2	vacuolar proton-ATPase subunit M9.2	emb CAA75571.1	95%	14	499
						54%	14	499
						46%	14	454
						52%	194	499
						62%	2230	2391
						60%	2382	2480
						63%	18	476
						62%	416	658
						71%	2699	2490
						100%	59	553
						71%	99	338

HOFNU55	897344	88	blastx.2	[Homo sapiens] (AP000616) similar to RING-H2 finger protein RHA1a (AF078683) [Oryza sativa]	dbj BAA85438.1	70%	654	544
HE8TE40	897862	89	blastx.2	Rabin3 [Rattus norvegicus]	gb AAA67890.1	87% 93%	152 1086	1114 1532
HNTCH73	900546	90	blastx.2	bone morphogenetic protein 2B [Homo sapiens]	gb AAA51835.1	100%	195	1418
HHFBY53	902534	91	blastx.2	IDN4-GGTR14 PROTEIN.	sp Q9Y6Y5 Q9Y6Y5	95% 22% 20% 22% 20%	6 837 801 833 836	128 956 932 940 955
HDPIE44	904763	92	blastx.2	(AF200706) UNC-84A [Caenorhabditis elegans]	gb AAF15883.1 AF2 00706_1	47% 39% 25% 42%	1852 170 1375 109	2418 313 1524 171
HHSAX10	904783	93	blastx.2	delta-9 desaturase [Gallus gallus]	emb CAA42997.1	71%	9	680
HPIAX83	906066	94	blastx.2	weakly similar to E. nidulans bimA gene product (SP:P17885) [Caenorhabditis elegans]	gb AAA81143.1	39% 37% 19% 22% 21% 24%	1167 588 1776 1716 1653 2274	2459 1025 2474 2186 2093 2540
HOFNG28	908746	95	blastx.2	CD59 GLYCOPROTEIN	sp O62680 CD59_PI G	54%	51	401

					PRECURSOR (MEMBRANE ATTACK COMPLEX 1 (PROTECTIN).				
HOFB27	911947	96	blastx.2		(AL050283) hypothetical protein [Homo sapiens]	emb CAB43384.1	97% 77% 42%	640 380 329	1491 745 427
HHBHJ45	913831	97	blastx.2		initiation factor 2 [Homo sapiens]	gb AAA67038.1	100%	11	1498
HHPDV90	914163	98	blastx.2		(AF090942) PRO0657 [Homo sapiens]	gb AAF24054.1 AF0 90942 1	53%	1122	874
HWMMQ4 7	915068	99	blastx.2		(AB029042) ATPase inhibitor precursor [Homo sapiens]	dbj BAA88422.1	100% 100%	53 1614	232 1754
HBGNY08	915214	100	blastx.2		(AP000616) similar to RING-H2 finger protein RHA1a (AF078683) [Oryza sativa]	dbj BAA85438.1	95% 100% 100% 100% 77% 90% 84% 44% 33% 35%	423 423 423 423 423 423 421 308 309 332	364 367 367 367 343 364 347 222 229 249
HODGH45	917394	101	blastx.2		(AK000385) unnamed protein product [Homo sapiens]	dbj BAA91131.1	80%	819	938
HWLKE58	917716	102	blastx.2		(AL031629) similar to RNA recognition motif. (aka RRM RRD or 1 1	emb CAA20980.2	52%	275	496

HRADL40	919433	103	blastx.2	dodecenoyl-CoA delta-isomerase [Homo sapiens]	emb CAA81066.1	100%	37	942
HOFMP73	919895	104	blastx.2	cathepsin B [Homo sapiens]	gb AAC37547.1	85%	113	1129
HOFMS02	920253	105	blastx.2	ATPase subunit 6 [Phoca vitulina]	emb CAA45262.1	54%	156	386
HUVHD12	921707	106	blastx.2	inositol polyphosphate 4-phosphatase [Rattus norvegicus]	gb AAB01069.1	35% 30% 60%	187 687 43	492 953 102
HMVDQ4 1	922191	107	blastx.2	(AL137496) hypothetical protein [Homo sapiens]	emb CAB70771.1	98% 99%	384 2	809 385
HODGI03	922879	108	blastx.2	replication protein A 14kDa subunit [Homo sapiens]	gb AAA58350.1	100%	447	635
HODHD14	922955	109	blastx.2	unknown protein [Homo sapiens]	gb AAA88036.1	60%	22	174
HODDC03	925296	110	blastx.2	ORF4 [Rattus norvegicus]	emb CAA37647.1	40% 58% 50%	126 344 307	245 433 336
HVCAG04	925735	111	blastx.2	(AF034633) GPR39 [Homo sapiens]	gb AAC26082.1	100% 29%	1281 1364	781 1293
HCRCE02	925837	112	blastx.2	putative p150 [Homo sapiens]	gb AAC51269.1	47% 50% 31% 40%	1 709 329 876	489 867 607 971
HHERA91	926067	113	blastx.2	(AK000530) unnamed protein product [Homo sapiens]	dbj BAA91234.1	100%	2031	2399

HAGDL82	928396	114	blastx.2	sapiens] (AK000496) unnamed protein product [Homo sapiens]	dbj BAA91205.1	75% 75%	5 210	208 257
HWBDS34	930484	115	blastx.2	Similar to S.cerevisiae hypothetical protein L3111 (S59316) [Homo sapiens]	dbj BAA13405.1	99%	57	983
H6ESA39	933568	116	blastx.2	BCDNA:LD21720 PROTEIN.	sp Q9XZ25 Q9XZ25	47% 26%	623 14	1150 169
HPCOR06	933678	117	blastx.2	ORFII [Homo sapiens]	emb CAA36480.1	73% 62% 56% 60%	99 310 28 266	266 459 144 310
HTFNO06	933989	118	blastx.2	(AC009177) unknown protein [Arabidopsis thaliana]	gb AAF27013.1 AC0 09177_3	39%	95	505
HODFY08	935520	119	blastx.2	(AB012223) ORF2 [Canis familiaris]	dbj BAA25253.1	45%	79	447
HRACK27	935717	120	blastx.2	(AL133045) hypothetical protein [Homo sapiens]	emb CAB61372.1	97%	681	1283
HRACW30	940639	121	blastx.2	(AF113887) kappa 1 immunoglobulin light chain [Homo sapiens]	gb AAD29608.1	93%	79	786
HOFOC32	941969	122	blastx.2	placental protein Diff33 [Homo sapiens]	emb CAB09783.1	84%	84	1502
HTTDM15	942511	123	blastx	(AL033127) hypothetical protein	emb CAA21869.1	27% 20%	62 759	427 959

					[Schizosaccharomyces pombe]			32%	965	1048
HOVAY63	944031	124	blastx.2		L1 retroposon, a portion of its ORF2 sequence [Rattus norvegicus]	emb CAA43593.1		65%	583	488
								43%	229	125
								34%	492	376
HDPFY41	946502	125	blastx.2		(AL050294) hypothetical protein [Homo sapiens]	emb CAB43393.1		94%	624	2072
								88%	1984	2037
								52%	2039	2113
HCOPB92	948608	126	blastx.2		ORF2, encodes a reverse transcriptase homolog [Homo sapiens]	gb AAB60345.1		60%	99	182
								51%	2	106
								66%	257	310
								64%	169	243
HBJHO83	948708	127	blastx.2		envelope polyprotein [Mus musculus]	gb AAA37565.1		46%	177	365
								45%	64	174
								85%	2	61
HWME04 4	948719	128	blastx.2		(AF038963) RNA helicase [Homo sapiens]	gb AAD19826.1		99%	3	1343
HFXIA96	949001	129	blastx.2		IDN4-GGTR14 PROTEIN.	sp Q9Y6Y5 Q9Y6Y5		93%	40	135
HTLGV19	949574	130	blastx.2		human complement C1r [Homo sapiens]	gb AAA51851.1		46%	72	539
								36%	604	732
								25%	567	740
HMSAC18	950257	131	blastx.2		(AB023584) reduced expression in cancer [Homo sapiens]	dbj BAA88923.1		100%	29	919
HAPRB43	950475	132	blastx.2		(AF124522) tetraspan NET-2 [Homo sapiens]	gb AAD17317.1		100%	3	536

HCCMD55	956895	133	blastx.2	catalase [Campylobacter jejuni]	emb CAA59444.1	94%	225	115
HKADF15	960658	135	blastx.2	(AF179370) insulin- like growth factor binding protein 5 protease [Rattus norvegicus]	gb AAD52683.1 AF1 79370_1	94% 70% 32%	424 113 9	1551 499 155
HOGES55	961337	136	blastx.2	proline-rich protein [Mus musculus]	gb AAA53048.1	31% 33% 33% 33% 33% 27%	515 515 645 809 1099 1099	1117 1117 1397 1117 1452 1557
HKZAJ14	961458	137	blastx.2	(AL133051) hypothetical protein [Homo sapiens]	emb CAB61378.1	100%	219	1028
HLHAE14	962362	138	blastx.2	unknown protein [Homo sapiens]	gb AAA88036.1	60% 38%	1969 1820	1805 1680
HBCJN16	965190	139	blastx.2	calcyphosine [Homo sapiens]	emb CAA66609.1	99%	38	346
HCGAF29	965372	140	blastx.2	(AF083217) WD repeat protein WDR3 [Homo sapiens]	gb AAD45865.1 AF0 83217_1	97% 27% 53% 34% 60% 60% 60% 46% 36% 53%	32 473 2270 2226 2269 2273 2272 2269 2226 2270	1660 940 2308 2312 2313 2317 2316 2307 2315 2314

HBJAB02	967807	142	blastx.2	(AK000069) unnamed protein product [Homo sapiens]	dbj BAA90924.1	47%	1600	1665
HOUCR01	968171	143	blastx.2	similar to D.melanogaster peroxidase(U11052) [Homo sapiens]	dbj BAA13219.1	33% 36% 30%	8 428 8	646 718 241
HDTIG18	968454	144	blastx.2	(AB017644) ubiquitin-conjugating enzyme E2 [Homo sapiens]	dbj BAA76544.1	100%	391	1011
HBLGD30	968949	145	blastx.2	precuruloplasmin (EC 1.16.3.1) [Homo sapiens]	gb AAA51976.1	100% 40% 41%	1 106 1183	2187 1512 2184
HFIHK04	969387	146	blastx.2	(AK000200) unnamed protein product [Homo sapiens]	dbj BAA91005.1	94%	306	151
HE8NQ16	970046	148	blastx.2	F20D12.3 gene product [Caenorhabditis elegans]	gb AAA81672.1	38% 36% 25% 25%	359 1259 2021 974	1099 1891 2653 1102
HOFMS34	973010	149	blastx	hPMSR6 [Homo sapiens]	gb AAA97460.1	59% 66%	324 552	536 605
HOF0B11	973505	150	blastx.2	15 KD SELENOPROTEIN PRECURSOR.	sp O60613 SE15_HU MAN	95%	18	503
HTLHN94	974667	151	blastx.2	(AB012955) KIP2 [Homo sapiens]	dbj BAA33584.1	99%	444	812
HLDRT31	975754	152	blastx.2	hepatocyte growth	gb AAA50165.1	90%	91	639

					factor-like protein [Homo sapiens]				50%	100	579
HWLHW8 6	975771	153	blastx.2		epithelial glycoprotein (EGP) precursor [Homo sapiens]	gb AAA35723.1			44%	100	579
									50%	346	558
HOFNM53	976051	154	blastx.2		(AL110276) hypothetical protein [Homo sapiens]	emb CAB53711.1			100%	245	1186
									37%	498	1094
HDPSE86	976207	155	blastx		(AF086713) rasGAP- activating-like protein [Homo sapiens]	gb AAD09006.1			83%	757	1311
									91%	1	420
									96%	508	774
									83%	401	511
									30%	361	450
									42%	1	42
HHFOE18	976216	156	blastx.2		(AL117664) hypothetical protein [Homo sapiens]	emb CAB56034.1			52%	376	1275
									35%	14	139
HHFNH27	976968	157	blastx.2		Nascent polypeptide associated complex alpha subunit [Homo sapiens]	emb CAA56869.1			98%	26	589
									100%	3	26
HMMBZ8 1	977264	158	blastx.2		alternatively spliced product using exon 13A [Homo sapiens]	gb AAB49034.1			52%	545	369
HSLGF32	977704	159	blastx.2		(AL133063) hypothetical protein [Homo sapiens]	emb CAB61387.1			52%	2	250
HODFU73	978812	161	blastx.2		myeloid ecotropic viral integration site-1b	gb AAA85509.1			94%	371	652

HNBUA49	978998	162	blastx.2	[Mus musculus] (AF085356) putative RNA helicase [Homo sapiens]	gb AAD40191.1	97% 38%	365 130	1282 183
HVVDU73	979346	163	blastx.2	ladinin [Homo sapiens]	gb AAB58817.1	99%	53	1603
HHESX72	979468	164	blastx.2	(AK001665) unnamed protein product [Homo sapiens]	dbj BAA91821.1	96%	202	480
HOCPY88	979547	165	blastx.2	(AF035299) similar to GAP binding protein p62do [Homo sapiens]	gb AAB88182.1	100%	136	939
HOGDC64	979666	166	blastx.2	kinase A anchor protein [Homo sapiens]	emb CAA66000.1	100% 40% 45%	236 1 40	769 165 204
HSIEA14	980139	167	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj BAA91131.1	72% 70% 68%	613 783 667	482 673 620
HSPSY43	980269	168	blastx.2	alphaII spectrin [Rattus norvegicus]	emb CAA62350.1	100%	937	1659
HSXBXH24	981029	169	blastx.2	(AF181645) BcDNA.GH12144 [Drosophila melanogaster]	gb AAD55431.1 AF1 81645_1	44% 36% 28% 26% 31% 22% 35% 23%	301 1207 1684 1702 1609 1711 1819 1867	1263 2148 2040 2067 1896 2061 1962 2157
HOFAE61	981108	170	blastx.2	predicted using Genefinder; Similarity to E.coli guanosine-3',	emb CAB05030.1	59% 71% 50%	173 5 727	430 88 822

HCFOF82	981272	171	blastx.2	1 [Caenorhabditis elegans] (AL133558) hypothetical protein [Homo sapiens] similar to yeast Sec6p, Swiss-Prot Accession Number P32844; 1 1 norvegicus]	emb CAB63713.1	98%	2	901
HOCMT79	981309	172	blastx.2		gb AA85505.1	94% 96%	481 2	1413 481
HKAIEI03	981319	173	blastx.2	Wiskott-Aldrich Syndrome Protein [Mus musculus]	gb AAC52556.1	35% 39% 40% 55% 34%	392 233 407 306 288	6 6 300 253 211
HOCPO31	981593	174	blastx.2	(AF015037) endooligopeptidase A related protein; EOPA related protein [Oryctolagus cuniculus]	gb AAB99905.1	79%	381	812
HAOTG88	981606	175	blastx.2	No definition line found [Escherichia coli]	gb AAC43132.1	100%	217	2
HVCAH21	981768	176	blastx.2	(AF044956) NADH:ubiquinone oxidoreductase B22 subunit [Homo sapiens]	gb AAD42057.1 AF0 44956_1	100%	80	616
HFPCK56	981812	177	blastx.2	(AF099664) Cdc42 effector protein 4 [Homo sapiens]	gb AAD16299.1	88%	3	125

HAOSJ58	981859	178	blastx.2	(AJ271784) chromokinesin [Homo sapiens]	emb CAB75427.1	87%	24	482
HOPJT48	981862	179	blastx.2	(AP000616) similar to RING-H2 finger protein RHA1a (AF078683) [Oryza sativa]	dbj BAA85438.1	95%	321	250
						91%	318	247
						95%	316	245
						100%	350	285
						100%	349	284
						100%	348	283
						100%	345	280
						100%	347	282
						100%	346	281
						100%	342	277
						100%	344	279
						100%	343	278
						100%	340	275
						100%	339	274
						100%	341	276
						100%	336	271
						100%	338	273
						100%	337	272
						100%	335	270
						100%	333	268
						100%	334	269
						100%	330	265
						100%	331	266
						100%	332	267
						100%	327	262
						100%	328	263
						100%	329	264

							100%	324	259
							100%	325	260
							91%	313	242
							88%	318	241
							84%	316	239
							64%	318	217
HCFV61	981914	180	blastx.2	(AK000541) unnamed protein product [Homo sapiens]		dbj BAA91241.1	99%	54	1091
HOVJY54	982032	182	blastx.2	similar to cuticle collagen [Caenorhabditis elegans]		emb CAA91932.1	36%	593	156
							33%	763	578
							37%	763	635
							29%	1088	942
HE8MM52	982197	184	blastx.2	(AL023828) cDNA EST yk289g5.5 comes from this gene; cDNA EST 1 1 yk653f1.5 comes from this gene; cDNA EST		emb CAA19455.1	48%	628	1137
				EMBL:C07875 comes from th			46%	121	552
HJBCC19	982465	185	blastx.2	(AK000516) unnamed protein product [Homo sapiens]		dbj BAA91222.1	99%	503	949
							90%	8	157
HODAA93	982618	186	blastx.2	(AJ224979) MTMR1 [Homo sapiens]		emb CAA12271.1	96%	63	737
HSPSI74	982764	187	blastx.2	L6 [Homo sapiens]		gb AAA36158.1	74%	698	790
HCEHZ42	983008	188	blastx.2	unknown [murine herpesvirus 68]		gb AAB66420.1	100%	100	705
							32%	2124	3170
							38%	1167	1451
							38%	1167	1451

						38%	1167	1451
						38%	1167	1451
						38%	1167	1451
						32%	2127	2414
						39%	2140	2304
						35%	94	375
						35%	94	375
						35%	94	375
						37%	116	334
						37%	116	334
						37%	116	334
						37%	116	334
						34%	620	817
						34%	620	817
						34%	620	817
						34%	620	817
						34%	620	817
						37%	7	135
						37%	7	135
						38%	1234	1422
						38%	1234	1422
						38%	1234	1422
HDPVU15	983592	189	blastx.2	replication factor C, 37-kDa subunit [Homo sapiens]	gb AAB09785.1	100%	72	686
						100%	685	954
						100%	1025	1138
						100%	1216	1308
HT5GC28	984008	190	blastx.2	alpha subunit; forms heterodimer with NC2 alpha/Dr1 [Homo sapiens]	emb CAA65358.1	60%	34	423
						58%	248	421

HDABW5 0	984168	191	blastx.2	t-complex polypeptide 1 (AA 1-556) [Homo sapiens]	emb CAA37064.1	100%	185	451
HAQBH11	985043	192	blastx.2	(AJ243177) Xenopus RPA interacting protein alpha [Xenopus laevis]	emb CAB45690.1	42% 46% 46% 28% 35%	393 110 238 244 247	626 244 393 369 336
HMVAW4 2	985280	193	blastx.2	extensin-like protein [Zea mays]	emb CAA84230.1	28%	960	10
HAGDF03	985323	194	blastx.2	neuromedin U [Homo sapiens]	emb CAA53619.1	100%	169	690
HOPKI29	985401	195	blastx.2	(AF087135) F1FO-type ATPase subunit d [Homo sapiens]	gb AAC36338.1	100%	65	547
HAJCA11	985580	196	blastx.2	GTBP-ALT [Homo sapiens]	dbj BAA23673.1	98% 97%	394 2	1293 391
HWAHA1 1	986078	197	blastx.2	(AB031292) proteolipid protein 2 [Mus musculus]	dbj BAA83500.1	31%	134	511
HSAMI43	986158	198	blastx.2	(AF111423) chromosome condensation protein XCAP-G [Xenopus laevis]	gb AAD09819.1	54% 53%	14 14	1471 1387
HNFJH73	986165	199	blastx.2	erm [Homo sapiens]	emb CAA65246.1	100%	1	591
HNTCH03	986328	200	blastx.2	put. ORF [Homo sapiens]	emb CAA39297.1	48% 70%	103 651	363 680
HSUAA20	986744	201	blastx.2	replication protein A,	gb AAA36584.1	100%	2	1312

				70-kDa subunit [Homo sapiens]		100%	1315	1347
HSPAD08	986767	202	blastx.2	(AL031663) dJ461P17.6 (Major Epididymis-specific protein E4 1 1 sapiens)	emb CAB37641.1	100%	905	1054
HFKBA32	987018	203	blastx.2	(AL121740) hypothetical protein [Homo sapiens]	emb CAB57330.1	76% 83%	256 540	1092 743
HHFLU49	987071	204	blastx.2	(AF068749) sphingosine kinase [Mus musculus]	gb AAC61698.1	46%	278	718
HOENX16	987112	205	blastx.2	helix-loop-helix protein [Homo sapiens]	emb CAA69255.1	100%	368	850
HTFOW71	987165	206	blastx.2	(AF121862) sorting nexin 13 [Homo sapiens]	gb AAD27835.1 AF1 21862_1	96% 88%	38 3	400 53
HTTAG03	987262	207	blastx.2	SPIN protein [Homo sapiens]	emb CAA75163.1	94% 47% 41% 44% 36% 33% 37% 61%	57 81 663 492 801 516 195 1228	1289 476 1238 857 1061 812 428 1278

HNTNN89	987577	208	blastx.2	elongation factor 2 [Homo sapiens]	emb CAA35829.1	98%	110	547
						77%	543	713
						100%	2	115
HRADQ96	987636	209	blastx.2	(AF134726) NG23 [Homo sapiens]	gb AAD21821.1	96%	303	398
						100%	6	29
HLDCJ16	987808	210	blastx.2	3-oxoacyl-[acyl-carrier- protein] reductase (EC 1.1.1.100). [Escherichia coli]	dbj BAA35901.1	39%	159	761
HCOPH23	987900	211	blastx.2	nucleoporin-like protein [Homo sapiens]	emb CAA61667.1	94%	289	447
HEEAQ78	988159	212	blastx.2	TBX2 [Homo sapiens]	gb AAA73861.1	99%	164	475
						98%	1	165
						33%	12	191
						29%	206	394
						29%	260	403
HOFNY16	988363	213	blastx.2	(AL110239) hypothetical protein [Homo sapiens]	emb CAB53690.1	99%	242	853
						100%	144	236
HSLCX45	988441	214	blastx.2	(AB006572) RPB5 meidating protein [Homo sapiens]	dbj BAA34781.1	98%	106	1404
HLMJB09	988499	215	blastx.2	cDNA EST yk575f9.3 comes from this gene [Caenorhabditis elegans]	emb CAA94859.1	39%	270	491
						34%	496	591
HOVEF60	988526	216	blastx.2	envelope protein [Homo sapiens]	gb AAA88027.1	75%	377	598
						36%	11	298
HOGDR72	988536	217	blastx.2	RNA polymerase II transcription factor SIII	gb AAA75522.1	100%	62	415

HOCMF20	988556	218	blastx.2	p18 subunit [Homo sapiens]	emb CAA71143.1	99%	1	366
HAMHH2 6	988737	219	blastx.2	high mobility group protein 2a [Homo sapiens]	gb AAB40147.1	98%	429	728
HHFOX44	988904	220	blastx.2	MHC Class I region proline rich protein [Homo sapiens]	emb CAA00862.1	99% 52% 56% 28% 36% 31% 45%	153 308 804 67 88 637 48	587 907 956 222 318 789 107
HPWDE54	989029	221	blastx.2	binding protein [Homo sapiens]	emb CAB64449.1	97%	1	2127
HNOAX46	989183	222	blastx.2	(AJ252060) TRABID protein [Homo sapiens]	emb CAA67781.1	100%	49	789
HCQCB28	989280	223	blastx.2	Berg36 [Homo sapiens]	dbj BAA91131.1	60% 77% 57%	471 301 1148	292 167 1107
HOOJB32	989321	224	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj BAA22572.1	100%	535	1173
HMWJJ35	989323	225	blastx.2	(AB007619) EBAG9 [Homo sapiens]	emb CAA75516.1	93% 100% 72%	312 551 260	410 607 346
HHFIA95	989396	226	blastx.2	Leu2 [Homo sapiens]	dbj BAA19546.1	92% 24% 47% 35%	120 279 1 5	1178 974 216 121

HSPSH36	989607	227	blastx.2	transcription factor ILF [Homo sapiens]	emb CAA43200.1	94%	77	247
HAAA25	989952	228	blastx.2	p67 myc protein [Homo sapiens]	dbj BAA01374.2	100%	250	282
HTEMJ16	990060	229	blastx.2	(AF151075) HSPC241 [Homo sapiens]	gb AAF36161.1 AF1 51075_1	100%	100	660
HWLAB90	990146	230	blastx.2	(AF067817) VAV-3 protein [Homo sapiens]	gb AAC79695.1	97%	361	618
HOSED43	990184	231	blastx.2	(AK001851) unnamed protein product [Homo sapiens]	dbj BAA91941.1	98%	2	652
						89%	622	813
						100%	2	790
HNODF50	990254	232	blastx.2	(AF222742) synaptic glycoprotein SC2 [Homo sapiens]	gb AAF32373.1 AF2 22742_1	100%	616	1155
						93%	187	528
						100%	116	181
HLWBV17	990255	233	blastx.2	(AF222742) synaptic glycoprotein SC2 [Homo sapiens]	gb AAF32373.1 AF2 22742_1	100%	282	542
						78%	123	206
						57%	26	88
HOCQH66	990435	234	blastx.2	collagen type VI, alpha 3 chain [Homo sapiens]	emb CAA36267.1	98%	43	2745
						43%	40	330
						40%	40	330
						45%	43	327
						46%	49	330
						44%	43	327
						47%	46	330
						48%	46	330
						45%	46	330
						46%	46	330
						43%	49	339
						44%	49	327
						41%	43	327

HOGDC67	990546	235	blastx.2	pyroline-5-carboxylate reductase [Homo sapiens]	gb AAA36407.1	48%	85	330
HCDBO02	990609	236	blastx.2	TIP120 [Rattus norvegicus]	dbj BAA13432.1	97%	10	327
HODGN92	990611	237	blastx.2	coded for by C. elegans cDNA yk38h3.5; coded for by C. elegans 11 [Caenorhabditis elegans]	gb AAA83581.1	66%	131	327
HPDRP30	990751	238	blastx.2	(AL122073) hypothetical protein [Homo sapiens]	emb CAB59248.1	37%	107	333
HBXFN09	990769	239	blastx.2	ORF 3 [Homo sapiens]	gb AAA58464.1	99%	1436	327
HDTBO75	990913	240	blastx.2	(AF065391) ZIS1 [Homo sapiens]	gb AAD09746.1	42%	65	960
						71%	43	1587
						100%	241	647
						39%	4	1031
						45%	13	
						32%	1	
						36%	1	
						33%	13	
						21%	4	72

HELGN26	991014	241	blastx.2	(AF123653) FEZ1 [Homo sapiens]	gb AAD23834.1 AF1 23653_1	47%	192	902
						52%	32	181
						38%	171	470
HODCU15	991048	242	blastx.2	(AF213822) hypothetical protein [Zymomonas mobilis]	gb AAF23786.1 AF2 13822_1	42%	1104	1550
						56%	1552	1710
						27%	1747	1929
HOGDI51	991268	243	blastx.2	(AF007872) torsinB [Homo sapiens]	gb AAC51733.1	100%	238	492
						92%	607	873
						69%	803	940
HLWAF02	991516	244	blastx.2	(AK001371) unnamed protein product [Homo sapiens]	dbj BAA91655.1	100%	192	449
HRKPA16	991654	245	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj BAA91131.1	76%	263	24
HPDQX94	991761	246	blastx.2	microsomal glutathione S-transferase 2 [Homo sapiens]	gb AAC51768.1	100%	210	650
HEAAY09	992678	247	blastx.2	TSC-22 [Homo sapiens]	dbj BAA07598.1	96%	40	333
HPDRH78	992780	248	blastx.2	(AK000474) unnamed protein product [Homo sapiens]	dbj BAA91189.1	100%	598	903
						79%	933	1079
HODFO57	992973	250	blastx.2	(AF176524) F-box protein FBL10 [Mus musculus]	gb AAF09133.1	67%	8	811
HOCpz44	993380	251	blastx.2	(AF151075) HSPC241 [Homo sapiens]	gb AAF36161.1 AF1 51075_1	99%	157	540
HPAMU38	993403	252	blastx.2	cDNA EST	emb CAB04720.1	48%	111	407

					yk269g12.5 comes from this gene; cDNA EST EMBL:D27364.1 comes from this gene; cDNA EST EMBL:D36272 comes from this gene			30% 37%	450 20	803 91
HNGGK47	993602	253	blastx.2	(AF126163) HHLA3 protein [Homo sapiens]	gb AAD33288.1 AF126163.1		78%	277	372	
HODGN51	993754	254	blastx.2	putative p150 [Homo sapiens]	gb AAC51261.1		64% 65% 48% 69%	124 77 3 545	549 205 134 613	
HODCT60	993806	255	blastx.2	(AK002129) unnamed protein product [Homo sapiens]	dbj BAA92096.1		56% 50%	239 624	382 671	
HAQBV81	993918	256	blastx.2	putative [Rattus norvegicus]	emb CAA52297.1		43%	3	695	
HDTGF49	993931	257	blastx.2	(AK002081) unnamed protein product [Homo sapiens]	dbj BAA92074.1		87%	1073	1531	
HOGBN62	994134	258	blastx.2	(AF132952) CGI-18 protein [Homo sapiens]	gb AAD27727.1 AF132952.1		95% 95% 43%	155 12 421	295 155 558	
HSKGR42	994234	259	blastx.2	(AK000741) unnamed protein product [Homo sapiens]	dbj BAA91354.1		73% 96% 56% 51% 34% 28%	147 1 412 413 291 273	536 153 528 499 404 377	

HOEBQ85	994356	260	blastx.2	(AL117435) hypothetical protein [Homo sapiens]	emb CAB55923.1	28% 32% 97%	316 291 3	468 437 362
HOPJG01	994536	261	blastx.2	creatine kinase B [Homo sapiens]	emb CAA33389.1	100%	1	1134
HKBAK06	994596	262	blastx.2	Cks1 protein homologue [Homo sapiens]	emb CAA38702.1	100% 81%	231 67	410 144
HKGCN61	994664	263	blastx.2	NifU-like protein [Homo sapiens]	gb AAC50885.1	100%	169	531
HFOYI37	994776	265	blastx.2	ribosomal protein [Homo sapiens]	dbj BAA03400.1	100%	85	513
HOFNL18	994874	266	blastx.2	(AL031432) dJ465N24.1 (PUTATIVE novel protein similar to predicted yeast and worm proteins) [Homo sapiens]	emb CAB37991.1	84%	43	339
HOFNT57	994954	267	blastx.2	phosphate cyclase [Homo sapiens]	emb CAA72364.1	98% 93%	273 124	1157 270
HCBMT45	994993	268	blastx.2	lin-10 protein homolog [Rattus norvegicus]	gb AAB51383.1	96%	46	1311

HATDZ56	995200	269	blastx.2	(AL031668) dJ64K7.2 (eukaryotic translation initiation factor 2, subunit 2 (beta, 38kD)) [Homo sapiens]	emb CAB43741.1	100%	156	1154
HOCQI44	995229	270	blastx.2	(AL050348) dJ447F3.2 (ubiquitin-conjugating enzyme E2 H10) [Homo sapiens]	emb CAB66118.1	92%	8	520
HNOJG43	995562	271	blastx.2	alpha 4 protein [Homo sapiens]	emb CAA70119.1	99%	73	981
HSPSB95	995590	272	blastx.2	proteasome subunit HsN3 [Homo sapiens]	dbj BAA05647.1	99%	47	838
HCORG29	995806	273	blastx.2	SRp30c [Homo sapiens]	gb AAA93069.1	100%	100	762
HCRNO02	995894	274	blastx.2	N8 GENE PRODUCT LONG ISOFORM, N8L PROTEIN=D52 1 HK4A1	sp G1488414 G14884 14	74% 63%	33 2	149 34
HCB0I79	996247	275	blastx.2	(AK000857) unnamed protein product [Homo sapiens]	dbj BAA91400.1	80% 100%	99 419	506 637
HVCAB73	996337	276	blastx.2	NF45 protein [Homo sapiens]	gb AAA20993.1	94% 70%	90 1175	1307 1297
HSDJH04	996619	277	blastx.2	RNA polymerase II subunit [Homo sapiens]	gb AAA91459.1	100%	219	419
HSOAN18	996804	278	blastx.2	(AB030654) AP-4 clathrin adaptor-related complex sigma4 subunit [Homo sapiens]	dbj BAA82970.1	100%	1	222

HHEHF49	996874	279	blastx.2	L-lactate permease [Escherichia coli]	gb AAA03583.1	91%	770	222
HCHCF36	996903	280	blastx.2	rac protein kinase-beta [Homo sapiens]	gb AAA36585.1	96%	1	456
HAHCK58	997127	281	blastx.2	(AK001138) unnamed protein product [Homo sapiens]	dbj BAA91517.1	98%	1	228
HETIJ06	997165	282	blastx.2	(AF152097) CGI-05 protein [Homo sapiens]	gb AAD34147.1 AF1 52097_1	97%	218	352
HAPOE30	997595	283	blastx.2	nuclear protein SA-1 [Homo sapiens]	emb CAA99731.1	100% 88%	244 11	759 244
HRGDC33	997862	284	blastx.2	C13F10.7 gene product [Caenorhabditis elegans]	gb AAC47967.1	34% 44%	301 301	735 648
HMTMB9 1	997873	285	blastx.2	(AC004858) U1 small ribonucleoprotein 1SNRP homolog; match to PID:g4050087 [Homo sapiens]	gb AAF19255.1 AC0 04858_3	100% 41%	1037 487	1174 555
HFAAD07	998059	286	blastx.2	(AJ132948) rfg7 protein [Homo sapiens]	emb CAB55313.1	97% 97%	274 32	957 298
HE8TG67	998517	287	blastx.2	product is related to clathrin-associated protein. [Homo sapiens]	dbj BAA09762.1	97% 97%	1226 502	1360 618
HACNC39	998533	288	blastx.2	weak similarity to Arabidopsis thaliana ubiquitin-like protein 8 [Caenorhabditis elegans]	gb AB42266.1	80%	162	380

HCOQP78	998901	289	blastx.2	(AB008927) neuropilin type2 [Homo sapiens]	dbj BAA82666.1	100%	75	989
HCGMA67	998905	290	blastx.2	rab8 [Canis familiaris]	emb CAB56776.1	100%	47	664
HSKHK19	998968	291	blastx.2	(AC004890) similar to HUB1; similar to BAA24380 (PID:g2789430) [Homo sapiens]	gb AAD45825.1 AC004890_2	98% 38% 54% 70%	2 566 1095 558	466 721 1160 587
HAGGR59	999124	292	blastx.2	histone H1-I [Volvox carteri]	gb AAA74723.1	36%	270	596
HOPKS83	999148	293	blastx.2	(AF026124) schwannoma-associated protein [Mus musculus]	gb AAC73069.1	93%	425	1894
HE8CY70	999157	294	blastx.2	SEP PROTEIN (FRAGMENT).	sp Q15352 Q15352	100% 92% 66% 48%	691 32 3 635	1368 691 128 706
HPCTI53	999243	295	blastx.2	(AJ250562) tetraspanin protein [Homo sapiens]	emb CAB65594.1	88% 100%	34 474	546 779
HOPKN50	999313	296	blastx.2	(AF017790) retinoblastoma-associated protein HEC [Homo sapiens]	gb AAB80726.1	95%	152	1702
HAPAI17	999778	297	blastx.2	(AK001832) unnamed protein product [Homo sapiens]	dbj BAA91931.1	97%	2	115
HHAUV59	999808	298	blastx.2	p116Rip [Mus musculus]	gb AAB18198.1	79% 67% 21%	95 547 1454	1903 801 1669

HTXLL31	1000315	299	blastx.2	(AK001770) unnamed protein product [Homo sapiens]	dbj BAA91897.1	36%	663	992
						27%	666	1379
						26%	4	645
						39%	481	621
HDPUH64	1000339	300	blastx.2	CRAG protein [Drosophila melanogaster]	emb CAA76938.1	42%	8	598
						66%	525	692
						65%	475	534
HTTHS93	1000424	301	blastx.2	(AL117183) conserved hypothetical protein [Schizosaccharomyces pombe]	emb CAB54870.1	25%	55	720
						36%	755	994
HMVCG79	1000582	302	blastx.2	(AJ387747) sialin [Homo sapiens]	emb CAB62540.1	100%	3	854
HODHK20	1000669	303	blastx.2	(AF176555) A-kinase anchoring protein 220 [Homo sapiens]	gb AAF07045.1 AF176555_1	94%	76	627
HCHMO53	1000875	304	blastx.2	(AK000462) unnamed protein product [Homo sapiens]	dbj BAA91181.1	41%	296	556
HFKKG84	1001066	305	blastx.2	(AF047002) transcriptional coactivator ALY [Homo sapiens]	gb AAD09608.1	98%	1	666
HOFMT20	1001333	306	blastx.2	(AK000541) unnamed protein product [Homo sapiens]	dbj BAA91241.1	48%	40	237
HPAMB04	1001695	307	blastx.2	17-kDa protein [Homo sapiens]	gb AAA36038.1	99%	127	621
HODEK48	1001901	308	blastx.2	pol [porcine endogenous retrovirus]	emb CAA76582.1	41%	398	721
						33%	25	423

HVVCB28	1001954	309	blastx.2	S19 ribosomal protein [Homo sapiens]	gb AAA89070.1	100%	373	807
HCOOS01	1002071	310	blastx.2	proliferation associated gene (pag) [Homo sapiens]	emb CAA48137.1	100%	105	701
HDACA35	1002096	311	blastx.2	(AK001496) unnamed protein product [Homo sapiens]	dbj BAA91724.1	73%	23	652
HOVDG59	1002328	312	blastx.2	(AK001610) unnamed protein product [Homo sapiens]	dbj BAA91787.1	100% 28%	13 40	639 588
HTJAD78	1002459	313	blastx.2	immunoglobulin gamma-2 heavy chain [Homo sapiens]	emb CAB58438.1	98%	64	1041
HCDCF69	1002468	314	blastx.2	lysyl hydroxylase [Homo sapiens]	gb AAA60116.1	98%	353	508
HPTTW90	1002479	315	blastx.2	Huntington's Disease (HD) gene [Homo sapiens]	emb CAA93701.1	99%	3	356
HSUBG36	1002492	316	blastx.2	snRNP E protein (AA 1-92) [Homo sapiens]	emb CAA31007.1	100%	67	342
HODFU72	1002527	317	blastx.2	(AB022660) SET- binding protein (SEB) [Homo sapiens]	dbj BAA82444.1	32%	57	689
HCNSF57	1002545	318	blastx.2	immunoglobulin lambda light chain [Homo sapiens]	emb CAA40940.1	96%	134	826
HODJU13	1002546	319	blastx.2	IDN4-GGTR14 PROTEIN.	sp Q9Y6Y5 Q9Y6Y5	85%	2	106

HODIL25	1002551	320	blastx.2	nuclear protein, NP220 [Homo sapiens]	dbj BAA11748.1	99%	207	1556
HUVHS56	1002563	321	blastx.2	(AF097441) phenylalanine-tRNA synthetase [Homo sapiens]	gb AAC83802.1	100%	174	755
HPMJQ18	1002565	322	blastx.2	unnamed protein product [unidentified]	emb CAB69299.1	91% 53%	407 209	823 247
HLHCI46	1002591	323	blastx.2	folate-binding protein precursor [Homo sapiens]	gb AAA35822.1	100%	153	923
HAOSD18	1002607	324	blastx.2	homologue to elongation factor 1- gamma from A.salina [Homo sapiens]	emb CAA45089.1	100%	98	1408
HACNG47	1002610	325	blastx.2	ribosomal protein L37a [Homo sapiens]	gb AAA60280.1	100%	86	361
HOPJX95	1002729	326	blastx.2	RPS16 [Homo sapiens]	gb AAA60583.1	100%	244	681
HSCLR05	1002807	327	blastx.2	HKR-T1 [Homo sapiens]	gb AAB24264.2	58% 42% 51% 41%	3 3 3 591	176 281 215 659
HVVAO74	1002811	328	blastx.2	clathrin light-chain A [Homo sapiens]	gb AAA59505.1	100%	178	831
HVVVK18	1003155	330	blastx.2	proteasome subunit HsC7-I [Homo sapiens]	dbj BAA05646.1	100%	323	925
HSCLM55	1003224	332	blastx.2	(AC004983) similar to PID:g3877944 [Homo sapiens]	gb AAD15546.1	100%	28	768

HETJU23	1003706	333	blastx.2	(AL133630) hypothetical protein [Homo sapiens]	emb CAB63754.1	99% 99% 73% 100% 28% 26% 35%	881 504 64 373 878 1121 343	1477 881 513 507 1084 1327 459
HNOKB73	1004480	334	blastx.2	(AF026692) frpHE [Homo sapiens]	gb AAC04617.1	93%	18	515
HODFB06	1004583	335	blastx.2	(AB012223) ORF2 [Canis familiaris]	dbj BAA25253.1	41% 51% 63% 51% 70%	362 3 135 265 200	760 143 191 360 259
HODJA76	1004619	336	blastx.2	(AF113685) PRO0974 [Homo sapiens]	gb AAF29584.1 AF1 13685_1	56% 38%	171 277	293 453
HODJY60	1004625	337	blastx.2	putative [Homo sapiens]	gb AAC37567.1	100%	141	683
HODEF10	1004627	338	blastx.2	(AB005878) BYJ15 [Nicotiana tabacum]	dbj BAA21615.1	69%	10	135
HODFB03	1004631	339	blastx.2	DNA primase (p58 subunit) [Homo sapiens]	emb CAA52378.1	90%	1	789
HPMLN08	1004632	340	blastx.2	(AF027728) kinesin- related protein [Xenopus laevis]	gb AAC60300.1	25% 26% 24% 23%	518 135 524 524	1165 533 1051 1060
HODEH08	1004633	341	blastx.2	(AK001410) unnamed protein product [Homo sapiens]	dbj BAA91675.1	87%	22	369

HEGBF25	1004635	342	blastx.2	(AF069736) PCAF associated factor 65 beta [Homo sapiens]	gb AAC39906.1	98%	165	758
HODJB51	1004643	343	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj BAA91205.1	52%	405	142
HODEC38	1004648	344	blastx.2	(AJ010089) GANP protein [Homo sapiens]	emb CAB52687.1	97% 52% 62% 87%	68 1993 2055 2030	208 2175 2150 2053
HODIQ24	1004660	345	blastx.2	(AK001892) unnamed protein product [Homo sapiens]	dbj BAA91965.1	100%	3	236
HVVDD56	1004887	346	blastx.2	gpStat50 [Homo sapiens]	emb CAA57684.1	97% 66%	435 1204	1238 1245
HTHDV01	1004950	347	blastx.2	c-fos protein [Homo sapiens]	gb AAA52471.1	100%	153	1292
HVVDJ95	1005153	348	blastx.2	Ral guanine nucleotide dissociation stimulator [Homo sapiens]	gb AAA52360.1	80%	185	400
HODIY29	1005236	349	blastx.2	DNA-binding protein 5 - human	pir S26650 S26650	97% 89% 57% 59% 53% 52% 58% 48% 43% 65%	1 13 1 4 19 4 4 4 1 4	963 963 453 453 453 444 408 453 453 276

HOELP29	1005359	350	blastx.2	uridine kinase [Mus musculus]	gb AAB50568.1	41%	1	444
HWLFG04	1005384	351	blastx.2	tax1-binding protein TXBP151 [Homo sapiens]	gb AAA75595.2	42%	25	441
HYAAC49	1005511	352	blastx.2	(AF001628) interactor protein AbBP4 [Homo sapiens]	gb AAD00897.1	71%	309	1013
HCOOA71	1005843	353	blastx.2	nuclear autoantigen fo 14 kDa [Homo sapiens]	emb CAB09660.1	100%	2	1015
HOUFB45	1005974	354	blastx.2	(AF072441) calcineurin binding protein cabin 1 [Homo sapiens]	gb AAD40846.1 AF072441_1	97%	107	688
HUSJ14	1006018	355	blastx.2	(AK001676) unnamed protein product [Homo sapiens]	dbj BAA91829.1	93%	107	727
HMCDB21	1006055	356	blastx.2	alpha1A-voltage-dependent calcium channel [Homo sapiens]	gb AAB49678.1	33%	155	688
HSDEY08	1006142	357	blastx.2	SWT/SNF complex 60 KDa subunit [Homo sapiens]	gb AAC50697.1	88%	58	111
						70%	690	749
						100%	717	737
						100%	720	740
						87%	717	740
						76%	68	205
						98%	2	403
						99%	411	2081
						98%	40	381
						54%	377	448
						100%	435	509
						92%	573	1037
						80%	136	603

				sapiens]				47%	158	403
HOOJT92	1006215	358	blastx.2	(AC007055) unknown [Homo sapiens]				37%	105	377
HNQRE03	1006250	359	blastx.2	(AK000927) unnamed protein product [Homo sapiens]				27%	666	773
								34%	323	418
								97%	44	172
								100%	4	669
HPCTS21	1006317	360	blastx.2	(AE001373) predicted secreted protein [Plasmodium falciparum]				27%	237	1049
								22%	177	1187
HFATL31	1006399	361	blastx.2	light chain 3 subunit of microtubule-associated proteins 1A and 1B [Rattus norvegicus]				82%	146	505
HE2JE77	1006445	362	blastx.2	(AF078848) BUP [Homo sapiens]				100%	2	328
HCBNX87	1006470	363	blastx.2	(AL137735) hypothetical protein [Homo sapiens]				99%	1	420
HNTDJ68	1006483	364	blastx.2	l(3)mbt protein homolog [Homo sapiens]				64%	3	626
								41%	628	1410
								44%	3	533
								40%	201	611

HTRAA05	1006512	365	blastx.2	heat shock protein [Drosophila melanogaster]	emb CAA30276.1	60%	631	840
HMTAL96	1006635	366	blastx.2	ras-like protein [Homo sapiens]	gb AA36547.1	98%	90	515
HDTJP21	1006858	367	blastx.2	(AF090942) PRO0657 [Homo sapiens]	gb AAF24054.1 AF0 90942.1	67%	17	136
HISEQ81	1006943	368	blastx.2	(AF009668) polyprotein [multiple sclerosis associated retrovirus]	gb AAB66528.1	83%	247	17
HODFH02	1006953	369	blastx.2	(AK002129) unnamed protein product [Homo sapiens]	dbj BAA92096.1	74%	346	438
HOCPP18	1007230	370	blastx.2	(AF150100) small zinc finger-like protein [Homo sapiens]	gb AAD40006.1 AF1 50100.1	100%	305	571
HODFP91	1007941	371	blastx.2	SpZ12-1 [Strongylocentrotus purpuratus]	gb AAA85705.1	27%	69	806
H6EDU06	1007976	372	blastx.2	(AF151894) CGI-136 protein [Homo sapiens]	gb AAD34131.1 AF1 51894.1	99%	75	449
HPCRD26	1008013	373	blastx.2	predicted using Genefinder; Similarity to Yeast mitochondrial 1.1 yk432a4.3 comes	emb CAB02879.1	35%	423	1229
						44%	1220	1294

HSIEH63	1008027	374	blastx.2	from this gene; cDNA EST yk432a4 (AF007791) secreted cement gland protein XAG-2 homolog [Homo sapiens]	gb AAC77358.1	65%	87	554
HPASD51	1008071	375	blastx.2	PDI (E.C.5.3.4.1) [Bos taurus]	gb AAA30690.1	33%	81	752
HCOQH27	1008154	376	blastx.2	IEF SSP 9502 [Homo sapiens]	gb AAA65201.1	100%	131	1315
HCOPZ14	1008179	378	blastx.2	guanylate kinase [Homo sapiens]	gb AAC37598.1	84%	889	1023
HODEC78	1008299	379	blastx.2	bicaudal-D [Homo sapiens]	gb AAB94805.1	94% 97% 40% 72% 20% 35% 21% 25% 39%	379 1203 319 1351 328 1191 328 856 328	1230 1343 744 1470 1188 1343 792 1056 396
HODEF29	1008304	380	blastx.2	(AB005878) BYJ15 [Nicotiana tabacum]	dbj BAA21615.1	80% 22%	38 202	133 330
HODEF78	1008314	382	blastx.2	IDN4-GGTR14 PROTEIN.	sp Q9Y6Y5 Q9Y6Y5	93%	3	101
HODEL83	1008324	383	blastx.2	pol gene protein; Xxx [Homo sapiens]	gb AAA88026.1	76%	132	407
HHPHSH76	1008325	384	blastx.2	(AF019386) heparan sulfate 3-O- sulfotransferase-1	gb AAB84388.1	100%	286	1206

HBGBE52	1008326	385	blastx.2	precursor [Homo sapiens] T2 [Mus musculus]	emb CAA48048.1	29% 33%	782 661	408 407
HBQAB30	1008327	386	blastx.2	alternatively spliced [Homo sapiens]	gb AAA35654.1	93%	24	737
HLHCB31	1008332	387	blastx.2	matrix metalloproteinase, MT2MMP [Homo sapiens]	dbj BAA13071.1	97%	1	558
HPFDV51	1008335	388	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj BAA91131.1	66% 69%	62 3	217 71
HODEG13	1008337	390	blastx.2	unknown protein [Homo sapiens]	gb AAA88038.1	65% 66% 67%	2 183 341	214 341 478
HHPFK16	1008345	391	blastx.2	Krueppel-related DNA-binding protein [Homo sapiens]	gb AAA52689.1	79% 65%	166 387	405 470
HARAL81	1008349	392	blastx.2	(AF090894) PRO0113 [Homo sapiens]	gb AAF24018.1 AF090894.1	55% 55%	217 323	104 216
HFTAU42	1008350	393	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj BAA91131.1	59% 55% 54%	1282 1115 1113	1106 990 1051
HETDA81	1008358	394	blastx.2	IDN4-GGTR14 PROTEIN.	sp Q9Y6Y5 Q9Y6Y5	88% 42%	3 221	110 262

HODEI92	1008359	395	blastx.2	(AF062006) orphan G protein-coupled receptor HG38 [Homo sapiens]	gb AAC28019.1	45%	1	306
HODEG86	1008379	397	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj BAA91131.1	55% 51%	236 424	400 546
HODFA57	1008396	398	blastx.2	retrovirus-related polypeptide pseudogene - human 1	pir A26718 A26718	36% 58%	102 17	596 67
HODFB31	1008401	399	blastx.2	(AL021768) ATP binding protein-like [Arabidopsis thaliana]	emb CAA16931.1	52%	1	261
HTEMP79	1008406	400	blastx.2	(AJ223782) CDC10 [Mus musculus]	emb CAA11547.1	95% 51% 94%	374 136 625	628 375 678
HODEI59	1008423	401	blastx.2	(AJ237734) ribophorin II [Homo sapiens]	emb CAB54801.1	100% 100% 97% 39% 30%	296 1404 1270 1876 1145	1273 1859 1404 1959 1279
HODEF94	1008429	402	blastx.2	IDN4-GGTR14 PROTEIN.	sp Q9Y6Y5 Q9Y6Y5	100%	2	85
HPFCZ53	1008445	403	blastx.2	(AF176818) transcription factor AP-2 [Silurana tropicalis]	gb AAD53289.1 AF176818_1	79% 93%	296 3	769 296
HWACN7 1	1008764	404	blastx.2	(AF105261) natural killer cell receptor 2B4 [Homo sapiens]	gb AAD32538.1 AF105261_1	100%	174	1268
HOFMU69	1009017	405	blastx.2	(AF077038) unc-50	gb AAD27771.1 AF0	97%	375	1151

					related protein homolog [Homo sapiens]	77038_1			
HETBR71	1009343	407	blastx.2		(AL049610) dJ1055C14.1 (transcription elongation factor A (SII)-like 1) [Homo sapiens]	emb CAB55700.1	99%	182	658
HE2ES17	1009349	408	blastx.2		CDV-1R protein [Mus musculus]	emb CAA71519.1	89%	3	914
HELHM06	1009362	409	blastx.2		pre-mRNA splicing factor [Homo sapiens]	gb AAA36649.1	85%	56	349
HE2ES61	1009388	411	blastx.2		(AC005034) gc-rich sequence dna-binding factor [Homo sapiens]	gb AAC82536.1	100%	555	427
HE2SO43	1009398	412	blastx.2		protein Htf9C [Mus musculus]	emb CAA39515.1	74%	73	390
HLHCI07	1009403	413	blastx.2		(AL031985) dJ228H13.1 (similar to Ribosomal protein L21e) 1	emb CAB46381.1	75%	127	8
HTTBR65	1009414	414	blastx.2		E1A-F [Homo sapiens]	dbj BAA02234.1	100%	55	231
HPFCV71	1009453	415	blastx.2		(AK002129) unnamed protein product [Homo sapiens]	dbj BAA92096.1	60%	449	622
HCABR46	1009479	416	blastx.2		BST-2 [Homo sapiens]	dbj BAA05679.1	88%	127	423
HCRCB80	1009482	417	blastx.2		OTK27 [Homo sapiens]	dbj BAA23363.1	100%	96	479
HPMLW78	1009833	418	blastx.2		E2A/PRL fusion	gb AAA36764.1	99%	1	606

HODJX27	1009854	420	blastx.2	protein [Homo sapiens] (AJ005324) glutamate permease [synthetic construct]	emb CAA06471.1	90%	1	123
HODJV85	1009857	421	blastx.2	ribosomal protein [Homo sapiens]	gb AAA36589.1	77% 35%	366 505	205 416
HOOJO38	1009918	422	blastx.2	ribosomal protein L14 [Homo sapiens]	dbj BAA13443.1	98%	1	603
HAOSI69	1009949	423	blastx.2	bcl-1 [Homo sapiens]	gb AAA58392.1	100%	271	1155
HSDIY67	1010157	424	blastx.2	hypoxanthine (guanine) phosphoribosyltransfer ase [Cricetus longicaudatus]	emb CAA42198.1	69%	60	689
HSDZM65	1010299	425	blastx.2	(AJ010953) putative Ca ²⁺ -transporting ATPase [Homo sapiens]	emb CAA09425.1	100%	2	337
HPDOC39	1010400	426	blastx.2	(AB009282) cytochrome b5 [Homo sapiens]	dbj BAA23735.1	99%	171	608
HE2PS15	1010525	427	blastx.2	(AF054175) mitochondrial proteolipid 68MP homolog [Homo sapiens]	gb AAC39909.1	100%	63	236
HTTKH22	1010596	428	blastx.2	weak similarity to	emb CAA86663.1	38%	887	1435

				microtubule associated proteins; cDNA EST 1 1 EMBL:D37339 comes from this gene; cDNA EST EMBL:D6742			32% 27%	1442 692	1561 949
HNOJG33	1010698	429	blastx.2	SAS [Homo sapiens]	gb AAC39524.1		98% 68% 100%	590 1203 1246	1207 1274 1278
HPDVVK48	1011090	430	blastx.2	AZ-1 [Mus musculus]	dbj BAA19002.1		82% 77% 82% 70% 23% 23% 34% 25% 29% 26% 27% 27% 31% 19% 27% 27% 30% 26% 27% 22% 33%	236 1100 735 1 200 1100 753 203 1148 1160 284 1091 747 302 750 738 747 239 660 747 750	730 1630 1100 243 775 1603 1103 769 1612 1612 775 1600 1091 1091 709 1085 1094 1097 727 1088 1085 1007

HNORJ10	1011186	431	blastx.2	hypoxia-inducible factor 1 alpha [Homo sapiens]	gb AAC50152.1	20%	780	1331
HPDRG92	1011209	432	blastx.2	2-oxoglutarate dehydrogenase precursor [Homo sapiens]	dbj BAA01393.1	82% 73% 35%	7 237 -1	234 326 60
HOFMQ81	1011303	433	blastx.2	unnamed protein product [Bos taurus]	emb CAA71771.1	66% 66%	152 97	541 141
HOFNF27	1011315	434	blastx.2	coxsackie and adenovirus receptor protein [Homo sapiens]	emb CAA68868.1	89%	60	623
HOFND52	1011316	435	blastx.2	interferon alpha /beta receptor [Homo sapiens]	emb CAA61914.1	43% 44%	240 59	533 205
HOFNL96	1011321	436	blastx.2	GM2-activator protein [Homo sapiens]	emb CAA43408.1	49% 43%	72 28	551 123
HOFNF53	1011332	437	blastx.2	(AF039584) decay	gb AAC77439.1	46%	62	883

					accelerating factor soluble-form precursor; CD55 [Rattus norvegicus]			41%	1155	1706
HOFMU61	1011360	438	blastx.2		(AJ009698) embigin protein [Rattus norvegicus]	emb CAA08796.1		28%	161	784
								32%	880	1101
								75%	99	143
								60%	377	1249
HOFOF35	1011499	439	blastx.2		(AF061738) leucine aminopeptidase [Homo sapiens]	gb AAD17527.1		86%	88	582
								88%	602	736
								82%	20	88
								25%	52	450
								90%	576	605
HULFJ37	1011537	440	blastx.2		midkine [Homo sapiens]	dbj BAA01457.1		100%	124	552
HOFME75	1011607	441	blastx.2		collagen binding protein 2 [Homo sapiens]	dbj BAA11829.1		93%	224	970
HOPKO74	1011608	442	blastx.2		collagen binding protein 2 [Homo sapiens]	dbj BAA11829.1		99%	229	1482
HCBBA51	1011755	443	blastx.2		(AF077045) ATP synthase epsilon chain [Homo sapiens]	gb AAD27778.1 AF0 77045_1		100%	114	266
HDHEB13	1011773	444	blastx.2		type X collagen [Bos taurus]	emb CAA37624.1		42%	202	942
								42%	235	942
								52%	229	534
								49%	229	537
								50%	202	537
								49%	232	549
								47%	235	537

HDTMG36	1011821	445	blastx.2	(AJ271158) DAPIT protein [Rattus norvegicus]				45%	229	534
								45%	229	549
								49%	235	537
								49%	232	537
								45%	199	534
								48%	211	537
								49%	235	537
								49%	235	534
								47%	226	537
								45%	235	534
								44%	226	534
								42%	202	534
								35%	235	750
								45%	235	537
								34%	235	750
								42%	232	534
HVVCJ38	1011830	446	blastx.2	CLC-7 chloride channel protein [Homo sapiens]				40%	202	549
								48%	283	537
								32%	53	277
								50%	50	130
HPAMY22	1011840	447	blastx.2	scleraxis=basic helix-loop-helix transcription factor [mice, embryos,				31%	47	277
								91%	75	248
HVVCJ38	1011830	446	blastx.2	CLC-7 chloride channel protein [Homo sapiens]				100%	20	817
								79%	4	180
HPAMY22	1011840	447	blastx.2	scleraxis=basic helix-loop-helix transcription factor [mice, embryos,						

				Peptide, 207 aa] [Mus sp.]					
HE9CP86	1011847	448	blastx.2	(AF161499) HSPC150 [Homo sapiens]	gb AAF29114.1 AF1 61499_1	100%	137	727	
HPDOU46	1011883	449	blastx.2	(AF117582) calcyphosine-like protein [Manduca sexta]	gb AAF16704.1 AF1 17582_1	52%	72	692	
HFCDW73	1011901	450	blastx.2	(AK000376) unnamed protein product [Homo sapiens]	dbj BAA91124.1	94%	6	425	
HOVEB13	1011919	451	blastx.2	(AL117452) hypothetical protein [Homo sapiens]	emb CAB55934.1	99%	96	905	
HPAMS93	1011948	452	blastx.2	TB1 [Homo sapiens]	gb AAA03587.1	97%	125	1105	
HCRBN71	1011966	453	blastx.2	unknown [Saccharomyces cerevisiae]	gb AAA79999.1	40%	64	420	
HCRNC60	1012005	454	blastx.2	tropomyosin [Homo sapiens]	gb AAA36771.1	81% 91% 31% 28% 27% 24% 22%	769 1202 796 766 766 925 1238	1236 1519 1245 1257 1218 1212 1459	
HSPSJ24	1012064	455	blastx.2	IFN-alpha responsive transcription factor [Homo sapiens]	gb AAA58687.1	100%	392	925	
HOVDZ22	1012136	457	blastx.2	unnamed protein product [unidentified]	emb CAB69195.1	89%	2	82	

HCONM62	1012454	460	blastx.2	100 kDa coactivator [Homo sapiens]	gb AAA80488.1	97% 29%	5 2	1306 646
HOGU69	1012459	461	blastx.2	TB2 [Homo sapiens]	gb AAA66351.1	99%	101	691
HVVB93	1012469	462	blastx.2	(AK001339) unnamed protein product [Homo sapiens]	dbj BAA91635.1	33% 27%	23 601	382 852
HCOMV86	1012482	463	blastx.2	DC classII histocompatibility antigen alpha-chain [Homo sapiens]	emb CAA25141.1	94% 98%	307 71	834 319
HCONJ23	1012519	464	blastx.2	DNA-PK [Homo sapiens]	gb AAA79184.1	97%	1	990
HVVBL04	1012536	465	blastx.2	inositol 1,4,5- trisphosphate receptor type 2 [Mus musculus]	emb CAA94861.1	98%	2	310
HVVAF65	1012542	466	blastx.2	peroxisomal acyl-CoA oxidase [Homo sapiens]	emb CAA50574.1	98%	3	731
HCONN76	1012545	467	blastx.2	p78 protein [Homo sapiens]	gb AAA36458.1	99%	64	1716
HODEG95	1012599	469	blastx.2	(AF118082) PRO1902 [Homo sapiens]	gb AAF22026.1 AF1 18094_21	64% 41%	452 550	300 443

HCOOX52	1012600	470	blastx.2	C1 inhibitor [Homo sapiens]	emb CAA30314.1	100%	68	1567
HVVBK78	1012645	472	blastx.2	protein kinase C mu [Homo sapiens]	emb CAA53384.1	98%	101	643
HVVBK73	1012646	473	blastx.2	amiloride binding protein [Homo sapiens]	emb CAA55046.1	93%	2	709
HCOMW3	1012652	474	blastx.2	NBK [Homo sapiens]	emb CAA62013.1	52%	648	710
						100%	48	527
HVVBK28	1012654	475	blastx.2	(AF026851) cytochrome oxidase assembly factor [Homo sapiens]	gb AAD08640.1	99%	44	1099
						99%	1102	1701
HVVA41	1012665	477	blastx.2	(AB006202) cytochrome b small subunit of complex II [Homo sapiens]	dbj BAA22054.1	100%	74	550
HVVAS32	1012668	478	blastx.2	giantin [Homo sapiens]	emb CAA53052.1	95%	24	2036
						97%	2032	2856
						27%	141	1877
						22%	123	2252
						23%	222	2015
						23%	135	2078
						22%	117	2030
						23%	153	2021
						23%	117	1829
						22%	126	2018
						20%	117	1877
						22%	69	2039
						19%	126	1883

HVVAQ70	1012678	479	blastx.2	voltage dependent anion channel form 3 [Homo sapiens]	gb AAB93872.1	22%	441	1994
						20%	1281	2039
						23%	2014	2622
						84%	43	117
						34%	2437	2700
						22%	2071	2631
						20%	2125	2628
						24%	2143	2625
						23%	2128	2616
						23%	1987	2652
						21%	2032	2538
						24%	2140	2625
						20%	2206	2634
						23%	2035	2622
						21%	2053	2694
						24%	1987	2559
						20%	2104	2715
						25%	2032	2313
						19%	2065	2610
						19%	2152	2628
						20%	2032	2565
						28%	2080	2238
						100%	110	136
						22%	3779	3910
						43%	3833	3901
						21%	2035	2616
						27%	2905	3057
						100%	134	982

HVVAQ22	1012684	480	blastx.2	smooth muscle myosin light chain kinase, smMLCK [C-terminal] 11	gb AAB50715.1	98% 98%	67 67	573 573
HTAES83	1012693	481	blastx.2	specific 116-kDa vacuolar proton pump subunit [Homo sapiens]	gb AAA97878.1	99% 99%	302 2350	1990 2961
HOCMN67	1012700	482	blastx.2	receptor kinase [Homo sapiens]	gb AAA58391.1	99% 92% 54% 60%	1 1142 1310 1332	1155 1306 1375 1376
HAPOW35	1012711	483	blastx.2	agpet8 protein. [Schizosaccharomyces pombe]	emb CAA94699.1	48%	113	553
HOVJM48	1013085	484	blastx.2	(AL035593) dJ310J6.1 (novel protein) [Homo sapiens]	emb CAB56526.1	100%	2	454
HBJHY84	1013213	485	blastx.2	(AK000703) unnamed protein product [Homo sapiens]	dbj BAA91330.1	97%	3	653
HFIAS44	1013288	487	blastx.2	(AF124727) acinusS [Homo sapiens]	gb AAD56725.1	99% 100% 43% 38% 34% 28% 24% 26% 23% 30%	205 69 1186 1186 1168 1195 1183 1375 1313 1490	1605 203 1389 1407 1395 1605 1605 1653 1615 1675

HHAUD68	1013349	488	blastx.2	non-histone chromosomal protein [Homo sapiens]	gb AAB53427.1	40%	1112	1207
HEEAA89	1013436	489	blastx.2	(AF071172) HERC2 [Homo sapiens]	gb AAD08657.1	98% 100%	43 2	675 46
HNTAK22	1013524	490	blastx.2	(AF053944) aortic carboxypeptidase-like protein ACLP [Homo sapiens]	gb AAC25585.1	99% 34% 32% 27% 27% 25%	2 2 53 20 3 9	3175 853 853 763 305 341
HOVBX78	1013687	491	blastx.2	(AK001751) unnamed protein product [Homo sapiens]	dbj BAA91882.1	98% 88% 47%	281 633 649	637 707 750
HVVAW7 4	1013740	492	blastx.2	elongation factor 2 [Homo sapiens]	emb CAA35829.1	99% 90%	139 5	516 136
HSPSF84	1013853	493	blastx.2	heat shock protein [Drosophila melanogaster]	emb CAA30276.1	40%	165	440
HPAMV95	1014003	494	blastx.2	metalloproteinase inhibitor precursor [Homo sapiens]	gb AAA59581.1	100%	54	713
HOVBX22	1014041	495	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj BAA91205.1	60% 40% 63%	317 159 181	183 67 149
HPDRB63	1014204	496	blastx.2	zinc finger protein C2H2-25 [Homo sapiens]	gb AAA93261.1	60% 65% 59% 53%	2 2 2 2	781 646 679 766

HNHGJ66	1014252	497	blastx.2	fused-ccdB [Escherichia coli]	emb CAA71575.1	49%	47	766
HDPPN96	1014432	498	blastx.2	interferon-gamma induced protein [Homo sapiens]	gb AA58683.1	99%	416	1741
						85%	1535	2434
						39%	1574	2413
						33%	536	1624
HPCTH41	1014485	499	blastx.2	(AB014888) MRJ [Homo sapiens]	dbj BAA32209.1	100%	168	890
						92%	1	123
HPCTY73	1014646	500	blastx.2	glycyl tRNA synthetase [Homo sapiens]	dbj BAA06338.1	100%	83	2299
HCOPQ33	1014730	501	blastx.2	SOX9 [Homo sapiens]	emb CAA86598.1	100%	3	380
HOEBR36	1014754	502	blastx.2	(AF180801) peroxisomal long chain acyl-CoA thioesterase Ib [Mus musculus]	gb AAF13872.1	73%	429	1061
						77%	176	352
						73%	9	167
						44%	352	480
HOEER36	1014869	504	blastx.2	(AF172066) retinoic acid repressible protein [Homo sapiens]	gb AAD49745.1 AF1 72066_1	100%	75	794
HE8OX75	1015010	505	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj BAA91131.1	53%	328	158
						54%	246	112
						85%	110	48
HVASI06	1015024	506	blastx.2	(AK000178) unnamed protein product [Homo sapiens]	dbj BAA90992.1	100%	106	1086
						31%	619	1206
						96%	35	109
						100%	1083	1106

HDPXP07	1015059	507	blastx.2	(AK000370) unnamed protein product [Homo sapiens]	dbj BAA91118.1	64%	3	215
HE2KH02	1015093	508	blastx.2	(AL137756) hypothetical protein [Homo sapiens]	emb CAB70908.1	99%	1	615
HSPSI60	1015133	509	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj BAA91205.1	67%	5	319
HOCOC26	1015143	510	blastx.2	(AE001691) conserved hypothetical protein [Thermotoga maritima]	gb AAD35130.1 AE001691_4	40% 41%	136 136	690 543
HHEDC05	1015204	511	blastx.2	Lipoprotein RlpA precursor. [Escherichia coli]	dbj BAA35276.1	98%	867	61
HODES86	1015304	512	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj BAA91131.1	57%	125	364
HOPJU57	1015324	513	blastx.2	SELENOPROTEIN W.	sp O15532 SELW_HUMAN	98%	934	1164
HVCAC71	1015343	514	blastx.2	alcohol dehydrogenase class III [Homo sapiens]	gb AAA51597.1	99%	41	1204
HSXCO55	1015360	515	blastx.2	coronin-like protein [Schizosaccharomyces pombe]	emb CAB11184.1	33% 28% 30% 24% 30%	159 1258 2063 991 1533	971 1575 2428 1263 1736
HLWDB78	1015430	516	blastx.2	(AK001322) unnamed protein product [Homo sapiens]	dbj BAA91623.1	95% 56%	30 613	602 681

HPCQU04	1015563	517	blastx.2	sapiens] (AF093414) estrogen response element binding protein [Saguinus oedipus]	gb AAC77437.1	98% 73% 77% 30%	315 1232 1309 282	1232 1390 1362 518
HDPAT52	1015574	518	blastx.2	(AF056191) TPA inducible protein [Homo sapiens]	gb AAC12944.1	99% 42% 45% 38% 37% 37% 36% 34%	122 290 467 458 467 473 473 467	1054 1054 1018 1030 1030 1024 1024 1024
HAOSL81	1015620	519	blastx.2	P24 protein [Mus musculus]	dbj BAA18947.1	41% 32%	139 815	549 970
HMWIU46	1015814	520	blastx.2	(AF148457) heterogeneous nuclear ribonucleoprotein, alternate transcript [Homo sapiens]	gb AAF04487.1 AF1 48457_1	99%	232	1152
HSXCQ19	1015994	521	blastx.2	(AC006486) BC85722_1 [Homo sapiens]	gb AAD11988.1	90% 37% 25% 29% 30% 28% 25% 47%	3 880 30 595 15 63 523 341	1175 1203 515 867 299 284 888 397
HNOAG06	1016272	522	blastx.2	(AF001947) U4/U6- associated RNA	gb AAC09069.1	100%	340	546

HE2KN09	1016351	523	blastx.2	splicing factor [Homo sapiens] (AF095446) syndesmos [Gallus gallus]	gb AAF29566.1 AF095446.1	75%	24	680
HI SDH58	1016740	524	blastx.2	(AF060570) rig-1 protein [Mus musculus]	gb AAD11628.1	70% 65% 48%	69 55 1058	1313 210 1222
HSPSB62	1016768	525	blastx.2	(AB016533) nuclear protein containing a WW domain (Npw38) [Homo sapiens]	dbj BAA76400.1	100%	196	990
HE2FR37	1016939	526	blastx.2	(AF213393) ATP-binding cassette protein [Mus musculus]	gb AAF31432.1	73%	247	726
HBJHU33	1017051	527	blastx.2	(AK001775) unnamed protein product [Homo sapiens]	dbj BAA91901.1	99%	82	618
HCOQZ88	1017227	528	blastx.2	(AF027299) protein 4.1-G [Homo sapiens]	gb AAC16923.1	100% 47%	225 3	1196 722
HNTSV21	1017374	529	blastx.2	seryl-tRNA synthetase [Homo sapiens]	emb CAA62635.1	95% 90%	712 3	1008 32
HNORH33	1017461	530	blastx.2	(AJ132637) ATP-dependent metalloprotease YME1L [Homo sapiens]	emb CAB51858.1	99%	255	2063
HUF EF35	1017565	531	blastx.2	precursor polypeptide (AA -21 to 782) [Homo sapiens]	emb CAA33261.1	99% 100% 35%	303 2527 1083	2123 3048 1166

HJPCG39	1017694	532	blastx.2	(AF118078) PRO1848 [Homo sapiens]	gb AAF22022.1 AF1 18094_17	65%	17	139
HISBM03	1017772	533	blastx.2	(AF092576) translation initiation factor eIF3 p40 subunit; 1	gb AAC84044.1	45%	142	240
HOFAA79	1017801	534	blastx.2	(AF134404) delta-6 fatty acid desaturase [Homo sapiens]	gb AAD31282.1 AF1 34404_1	100%	751	924
HPRAJ96	1017825	535	blastx.2	growth-regulating protein [Homo sapiens]	gb AAA18898.1	88%	14	532
HBXFX71	1018032	536	blastx.2	(AF071081) proline- rich mucin homolog [Mycobacterium tuberculosis]	gb AAD41594.1 AF0 71081_1	83%	505	885
HMVDD8 1	1018080	537	blastx.2	(AF161477) HSPC128 [Homo sapiens]	gb AAF29092.1 AF1 61477_1	100%	690	824
HVVDDH50	1018226	538	blastx.2	zyxin [Homo sapiens]	emb CAA64447.1	100%	653	685
HNNBT57	1018243	539	blastx.2	(AK000372) unnamed protein product [Homo sapiens]	dbj BAA91120.1	32%	143	1327
HCONJ11	1018459	540	blastx.2	(AF083385) 30kDa splicing factor; SPF 30 [Homo sapiens]	gb AAC64086.1	100%	1330	1857
HCQAW6	1018501	541	blastx.2	(AK000010) unnamed	dbj BAA90881.1	32%	1303	1455
						21%	662	1336
						32%	134	346
						45%	1822	1914
						24%	5	295
						54%	194	45
						28%	355	230
						30%	363	244
						100%	186	899
						100%	104	436

8					protein product [Homo sapiens]		100%	1198	1293
HVVCY25	1018772	542	blastx.2	almost identical to nRNP M-protein, acc.L03532 [Homo sapiens]	emb CAA50897.1		96%	1381	1455
HCOMB65	1018802	543	blastx.2	dJ68O2.2 (myosin, heavy polypeptide 9, non-muscle) [Homo sapiens]	emb CAB05105.1		98%	409	1059
							56%	418	792
							47%	394	711
							48%	418	810
							99%	332	1204
							100%	1803	2600
							100%	1204	1800
							26%	1725	2486
							63%	19	246
							23%	332	1237
							23%	335	1243
							25%	341	1183
							23%	332	1156
							23%	1803	2588
							22%	332	1147
							22%	332	1195
							25%	332	1195
							23%	332	1201
							23%	299	1249
							22%	1734	2531
							23%	1204	1746
							27%	1207	1791
							21%	1219	1767
							22%	335	1198
							30%	1258	1788
							22%	1794	2588
							23%	491	1204
							19%	335	1237

							1824
							1815
							470
							1198
							919
							1800
							1246
							1773
							1210
							1791
							1788
							2435
							1249
							2477
							1791
							2471
							2489
							1785
							1237
							1794
							2486
							2480
							1800
							1872
							1788
							1776
							1785
							1800
							2462
							1800

								22%	1204	1788
								23%	1237	1803
								18%	1189	1767
								25%	611	1183
								25%	1228	1473
								29%	1222	1440
								31%	1714	1800
								35%	67	228
								27%	1684	1803
								31%	115	237
								28%	61	216
								26%	67	225
								24%	258	401
								19%	34	234
								28%	249	344
								26%	1192	1305
HVVCF30	1018907	544	blastx.2	(AF010144) neuronal thread protein AD7c- NTP [Homo sapiens]			gb AAC08737.1	53%	121	387
								61%	118	294
								69%	149	295
								62%	3	131
								59%	284	349
								53%	42	128
								47%	282	380
HODBV21	1018943	545	blastx.2	(AC004537) similar to tumor suppressor p33ING1; similar to AF044076 (PID:g2829208) [Homo sapiens]			gb AAC12956.1	99%	151	861
HCHMD81	1019326	546	blastx.2	(AL023859) trna-			emb CAA19575.1	42%	733	945

				splicing endonuclease subunit [Schizosaccharomyces pombe]		29%	85	423
HAZAR95	1019338	547	blastx.2	phosphate carrier protein [Homo sapiens]	emb CAA42641.1	100%	110	1192
HMWFS51	1019409	548	blastx.2	(AB012223) ORF2 [Canis familiaris]	dbj BAA25253.1	41% 54% 42%	314 71 648	607 277 704
HE8SD82	1019585	549	blastx.2	(AL035494) dJ635G19.2.1 (novel protein (isoform 1)) [Homo sapiens]	emb CAB44749.1	99%	13	570
HSPSN08	1019608	550	blastx.2	(AF161491) HSPC142 [Homo sapiens]	gb AAF29106.1 AF161491.1	100% 99%	134 918	919 1235
HVCAH24	1019749	551	blastx.2	(AC002394) Unknown gene product [Homo sapiens]	gb AAC05810.1	100%	103	468
HIPCF71	1019892	554	blastx.2	(AK000566) unnamed protein product [Homo sapiens]	dbj BAA91259.1	98%	234	830
HVCAE76	1019942	555	blastx.2	zinc finger protein [Rattus norvegicus]	emb CAA42610.1	48% 34% 50% 63%	576 72 1 89	2075 731 90 121
HOCMH14	1020007	556	blastx.2	(AL137618) hypothetical protein [Homo sapiens]	emb CAB70844.1	99% 78% 42%	298 1146 1871	1311 1730 1984
HPDRZ03	1020130	557	blastx.2	CCAAT-box DNA binding protein subunit	gb AAA59930.1	100%	131	751

HOCPO73	1020180	558	blastx.2	NF-YB [Homo sapiens] protein p84 [Homo sapiens]	gb AA53571.1	93% 97% 100% 42% 37%	3646 3881 3993 1832 1888	2024 3636 3940 1758 1841
HNKDT10	1020832	559	blastx.2	(AF191018) E2IG3 [Homo sapiens]	gb AAF09482.1 AF1 91018 1	99% 93%	77 426	436 569
HWHGO2 5	1020841	560	blastx.2	(AF090942) PRO0657 [Homo sapiens]	gb AAF24054.1 AF0 90942 1	68%	3	137
HWMNE3 1	1020852	561	blastx.2	(AF083384) 45kDa splicing factor; SPF 45 [Homo sapiens]	gb AAC64085.1	98%	169	675
HUSYJ75	1020878	562	blastx.2	(AJ242540) hydroxyproline-rich glycoprotein DZ- HRGP [Volvox carteri f. nagariensis]	emb CAB62280.1	33% 35% 34% 32% 34% 32% 31% 32% 29% 31% 30% 28% 34% 31%	67 67 67 67 67 67 67 67 64 67 64 64 184 184	684 624 624 684 624 714 696 624 714 654 654 696 624 783
HSDFS07	1020904	563	blastx.2	(AL033534) hypothetical serine-rich secreted protein	emb CAA22127.1	27%	981	118

HOVAA59	1022037	573	blastx.2	(AC002291) Similar ATP-dependent RNA Helicase [Arabidopsis thaliana]				27%	1232	1372
								48%	590	682
								28%	1285	1455
								41%	1143	1193
								59%	252	1319
								33%	1765	2421
								31%	1316	1585
								39%	1573	1770
								21%	1744	2211
								46%	1417	1506
								29%	1744	1917
								27%	1736	1966
								38%	1447	1536
								36%	1718	1813
HOCPL72	1022059	574	blastx.2	(AK001197) unnamed protein product [Homo sapiens]			dbj BAA91548.1	97%	38	1063
								92%	2402	2440
HCOMM0 5	1022082	575	blastx.2	epidermal growth factor receptor kinase substrate [Homo sapiens]			gb AA62280.1	46%	445	840
								43%	115	435
								23%	43	222
HLYDC86	1022162	576	blastx.2	(AF015040) NUMB protein [Homo sapiens]			gb AAD01548.1	100%	3	836
								100%	839	1570
HTLEP21	1022167	577	blastx.2	(AF081280) nucleoplasmin-3 [Homo sapiens]			gb AAC31609.1	97%	101	445
								100%	33	95
HVCAS77	1022313	578	blastx.2	ribonuclease HI large subunit [Homo sapiens]			emb CAB09725.1	99%	176	1072
HSKJP93	1022663	580	blastx.2	(AL050022) hypothetical protein			emb CAB43242.1	100%	2	247

HAZAA64	1022719	581	blastx.2	[Homo sapiens] predicted using Genefinder; Similarity to Prototheca 1 1 gene; cDNA EST yk386cl.3 comes from this gene; cDNA EST yk38	emb CAA99938.1	43%	304	705
HSEBD72	1022904	582	blastx.2	(AF044773) breakpoint cluster region protein 1 [Homo sapiens]	gb AAC08964.1	89%	164	580
HDPYE27	1022911	583	blastx.2	(AF062346) zinc finger protein 216 splice variant 1 [Homo sapiens]	gb AAC42601.1	100%	428	1066
HCRQL51	1022997	584	blastx.2	PEG1/MEST [Homo sapiens]	emb CAA72297.1	100%	50	1030
HDTCC55	1023046	585	blastx.2	(AL117483) hypothetical protein [Homo sapiens]	emb CAB55956.1	33% 35% 42%	306 4 105	533 105 182
HOOJQ91	1023049	586	blastx.2	envelope protein [Homo sapiens]	gb AAA88027.1	63%	3	530
HCE4K28	1023227	587	blastx.2	(AF021792) Bcl- X/Bcl-2 binding protein [Homo sapiens]	gb AAB72092.1	98%	262	750
HPDVY62	1023264	588	blastx.2	DOCK180 protein [Homo sapiens]	dbj BAA09454.1	99%	2	1126
HLHDK42	1023339	589	blastx.2	modifier 2 [Mus musculus]	emb CAA40012.1	61% 85%	58 3	300 62
HLDRQ55	1023375	590	blastx.2	coiled-coil like protein	gb AAB61902.1	98%	5	388

HVVBI06	1023414	591	blastx.2	1 [Mus musculus] (AF064603) GA17 protein [Homo sapiens]	gb AAC17108.1	97%	93	647
HOCME51	1023422	592	blastx.2	(AK001103) unnamed protein product [Homo sapiens]	dbj BAA91503.1	96%	1359	637
HPDOP74	1023531	593	blastx.2	(AF104670) cell cycle protein [Homo sapiens]	gb AAD05561.1	98%	14	313
HMSOH12	1023545	594	blastx.2	chaperonin-like protein [Homo sapiens]	gb AAA61061.1	96%	319	492
HOPJG50	1023584	595	blastx.2	ribosomal protein L34 [Homo sapiens]	gb AAC41916.1	97%	498	623
HUAB04	1023585	596	blastx.2	ribosomal protein L34 [Homo sapiens]	gb AAC41916.1	100%	173	1354
HVCAA38	1023632	597	blastx.2	TREB protein [Homo sapiens]	emb CAA39149.1	100%	1	1077
HIBC87	1023837	598	blastx.2	(AF006264) recombination and sister chromatid cohesion protein homolog [Homo sapiens]	gb AAD01193.1	97%	157	507
HPCOM04	1024000	599	blastx.2	vacuolar H+ ATPase E subunit [Homo sapiens]	emb CAA53814.1	97%	21	371
						100%	36	818
						96%	1	1017
						92%	1160	1300
						79%	1332	1478
						100%	1582	1665
						67%	969	1070
						28%	88	972
						33%	202	471
						40%	250	417
						38%	1169	1315
						36%	331	510
						35%	969	1028
						100%	141	818

HPAME01	1024332	601	blastx.2	(AL109978) hypothetical protein [Homo sapiens]	emb CAB53376.1	98%	804	1061
HTTJS76	1024472	602	blastx.2	N-WASP [Homo sapiens]	dbj BAA20128.1	97% 68%	3 6	392 44
HCORI57	1024556	603	blastx.2	39 kDa encoded by N33 [Homo sapiens]	gb AAB18374.1	97%	200	1231
HNORG50	1024624	604	blastx.2	(AF006084) p41-Arc [Homo sapiens]	gb AAB64189.1	57%	198	275
HWLVR07	1024915	605	blastx.2	(AL050273) hypothetical protein [Homo sapiens]	emb CAB43374.1	98% 66%	62 1029	1027 1112
HOPKF60	1025047	606	blastx.2	(AJ249366) epsilon- COP protein [Homo sapiens]	emb CAB55628.1	100%	203	517
HBDAD74	1025102	607	blastx.2	(AL031640) /prediction=(method:"" genscan" version:""1.0"" , 1 1 1 target:SPTREMBL::O6 087	emb CAA21052.1	39%	2	403
HPCTY12	1025231	608	blastx.2	(AB015597) hTIM1 [Homo sapiens]	dbj BAA36499.1	96%	68	1225
HFASF12	1025327	609	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj BAA91131.1	64%	251	3
HLIBM71	1025359	610	blastx.2	(AF110776) adrenal gland protein AD-003 [Homo sapiens]	gb AAF14859.1 AF1 10776_1	98% 100%	183 512	512 766

HNOKW2 7	1025366	611	blastx.2	F35C11.4 [Caenorhabditis elegans]	emb CAA90244.1	30% 31%	162 743	632 1060
HPFDG48	1025526	612	blastx.2	(AF083242) HSPC024- iso [Homo sapiens]	gb AAD39840.1	88% 90%	313 564	387 623
HVVBF24	1025712	613	blastx.2	TRAM protein [Homo sapiens]	emb CAA45218.1	100%	175	1296
HE8UF88	1025745	614	blastx.2	retinoblastoma-binding protein mRbAp48 [Mus musculus]	gb AAC52275.1	96% 40%	124 1391	1473 1495
HOUBC29	1025749	615	blastx.2	GTP-binding protein (rab2) [Canis familiaris]	gb AAA30888.1	100%	444	719
HOCPY47	1025965	616	blastx.2	(AF055010) unknown [Homo sapiens]	gb AAC09360.1	99% 92%	1567 1337	2760 1594
HOVKE20	1025990	617	blastx.2	follistatin-related protein FLRG [Homo sapiens]	gb AAC64321.1	100%	36	824
HODBK27	1026372	619	blastx.2	(AF054284) spliceosomal protein SAP 155 [Homo sapiens]	gb AAC97189.1	100%	123	497
HE8CH59	1026805	620	blastx.2	(AK001093) unnamed protein product [Homo sapiens]	dbj BAA91500.1	100% 100% 31% 36%	1913 1654 1994 2405	2632 1848 2689 2755
HSKGR52	1026911	621	blastx	putative glycosyl transferase [Schizosaccharomyces pombe]	emb CAB10854.1	55% 76% 42% 40%	488 389 272 92	616 439 376 202

HMUAQ0 5	1026913	622	blastx.2	(AF151825) CGI-67 protein [Homo sapiens]	gb AAD34062.1 AF1 51825_1	74%	54	524
HCOMA45	1026979	623	blastx.2	(AF113685) PRO0974 [Homo sapiens]	gb AAF29584.1 AF1 13685_1	51% 66%	557 601	378 566
HE2KI45	1027007	624	blastx.2	(AF161553) HSPC068 [Homo sapiens]	gb AAF29040.1 AF1 61553_1	99%	6	1565
HODDO66	1027207	625	blastx.2	S-adenosylmethionine synthetase [Homo sapiens]	emb CAA48726.1	78% 94% 52%	35 865 7	241 975 63
HVVAT45	1027269	626	blastx.2	(AF102265) N- acetylglucosamine- phosphate mutase [Homo sapiens]	gb AAC72409.1	100% 100%	275 74	1117 277
HVCAG18	1027484	627	blastx.2	(AL031663) dJ461P17.6 (Major Epididymis-specific protein E4 1 1 sapiens]	emb CAB37641.1	100%	22	393
HPTXK72	1027486	628	blastx.2	(AL031663) dJ461P17.6 (Major Epididymis-specific protein E4 1 1 sapiens]	emb CAB37641.1	100%	91	462
HDTLR06	1029191	630	blastx.2	(AF132552) BcDNA.GM01838 [Drosophila melanogaster]	gb AAD27851.1 AF1 32552_1	73%	123	1004
HPAMG11	1029484	631	blastx.2	BB1=malignant cell expression-enhanced gene/tumor 1 line, Peptide, 342 aa [Homo sapiens]	gb AAB37433.1	99%	2	667

HSDJR27	1030870	632	blastx.2	(AL137520) hypothetical protein [Homo sapiens]	emb CAB70786.1	100%	52	1176
HOCPL33	1030871	633	blastx.2	extensin [Volvox carteri]	emb CAA46283.1	32% 35% 33% 32% 45% 34% 48% 36%	1097 1037 1040 1094 1747 1735 566 74	1516 1429 1420 1429 1899 1881 640 130
HPCQN80	1030963	634	blastx.2	ha1025 is new [Homo sapiens]	dbj BAA07552.1	99% 96%	95 1	2158 96
HODFZ16	1031085	636	blastx.2	(AB033168) nuclear protein ZAP [Mus musculus]	dbj BAA85182.1	86%	349	462
HWGAE28	1031316	637	blastx.2	member of DEAD box protein family [Homo sapiens]	emb CAA49992.1	99%	52	2271
HOFNZ21	1031328	638	blastx.2	valosin-containing protein [Sus scrofa]	gb AAA31142.1	65%	259	423
HOOKH25	1031329	639	blastx.2	(AC004472) TERA_HUMAN [Homo sapiens]	gb AAC07984.1	100%	279	2696
HDTIL75	1031435	640	blastx.2	(AK000031) unnamed protein product [Homo sapiens]	dbj BAA90894.1	99%	22	1092

HPRSB55	1031451	641	blastx.2	(AF168418) activating signal cointegrator 1 [Homo sapiens]	gb AAF01278.1	99%	9	1751
HPDPY36	1031606	642	blastx.2	(AF125182) single- strand selective monofunctional uracil DNA glycosylase [Homo sapiens]	gb AAD17301.1	100%	512	631
HETJF47	1031922	643	blastx.2	(AF020797) AP-mu chain family member mu1B [Homo sapiens]	gb AAD25870.1 AF0 20797_1	99%	60	1328
HMAIM21	1031988	644	blastx.2	hypothetical protein Rv0712 [Mycobacterium tuberculosis]	emb CAB06436.1	41%	365	1204
HCOQQ85	1032475	645	blastx.2	S100 calcium-binding protein A13 (S100A13) [Homo sapiens]	emb CAA68188.1	100%	379	672
HE2DQ62	1033653	646	blastx.2	putative T1/ST2 receptor binding protein precursor [Homo sapiens]	gb AAC50419.1	98%	105	785
HEBAE89	1034320	647	blastx.2	(AK000264) unnamed protein product [Homo sapiens]	dbj BAA91040.1	97%	260	400
HKDBF43	1034471	648	blastx.2	(AL049705) hypothetical protein [Homo sapiens]	emb CAB41269.1	100%	48	431
HVVCT43	1034539	649	blastx.2	novel ORF [Homo sapiens]	gb AAB72234.1	91% 100%	700 633	801 698

HTTDR30	1035435	650	blastx.2	(AF214634) polyA binding protein [Homo sapiens]	gb AAF19993.1 AF214634_1	91%	806	841
HODGO46	1035602	651	blastx.2	unknown protein [Homo sapiens]	gb AAA88036.1	38%	468	115
HNTTB23	1035988	652	blastx.2	(AJ246001) spastin protein [Homo sapiens]	emb CAB60141.1	99%	93	974
HVVVBV73	1036583	653	blastx.2	(AF013249) leukocyte-associated Ig-like receptor-1 [Homo 1]	gb AAB69324.1	100%	439	1299
HTEPV42	1036973	655	blastx.2	(AK001738) unnamed protein product [Homo sapiens]	dbj BAA91872.1	99%	1	435
HFTCG52	1037108	656	blastx.2	(AF117723) seed maturation protein PM27 [Glycine max]	gb AAD30426.1 AF117723_1	30%	286	786
HKAOB40	1037131	657	blastx.2	predicted using Genefinder; Similarity to Drosophila RNA 1 this gene [Caenorhabditis elegans]	emb CAB01127.1	32%	73	357

HPDVE37	1037303	658	blastx.2	cathepsin C [Homo sapiens]	emb CAA60671.1	100%	118	885
HTLES74	1037438	659	blastx.2	GAP-associated protein p190 - rat	pir A38218 A38218	74% 56% 63% 41%	50 681 15 43	811 875 152 171
HCORG51	1037480	660	blastx.2	ubiquitin-like protein [Bos taurus]	gb AAB49682.1	100%	150	434
HPAMM7 2	1038344	661	blastx.2	nucleoside-diphosphate kinase [Homo sapiens]	emb CAA68877.1	99%	44	520
HKZAT03	1038378	662	blastx.2	endothelial cell growth factor [Homo sapiens]	gb AAA60043.1	100%	114	1559
HDQMA8 5	1038717	663	blastx.2	glutathione S-transferase [Homo sapiens]	gb AAA35934.1	100% 100%	234 110	356 235
HVCCQ82	1038718	664	blastx.2	glutathione S-transferase [Homo sapiens]	gb AAA35934.1	100%	114	578
HTGFP54	1038915	665	blastx.2	(AL080156) hypothetical protein [Homo sapiens]	emb CAB45747.1	94%	415	525
HBODF41	1039017	666	blastx.2	beta-spectrin [Homo sapiens]	gb AAA60580.1	99% 20% 21% 22% 19% 22% 60%	1 7 28 16 1 184 2127	2172 2091 2151 2187 2118 2193 2351
HPAMC60	1039290	668	blastx.2	TRAF4-associated factor 2 [Homo sapiens]	gb AAD24202.1 U83194.1	100%	31	1242

HLMHM8 3	1039491	669	blastx.2	sapiens] (AK001123) unnamed protein product [Homo sapiens]	dbj BAA91513.1	44%	158	616
HOUDK70	1039538	670	blastx.2	(AF091083) unknown [Homo sapiens]	gb AAC72952.1	100%	285	1142
HMEFK29	1039652	672	blastx.2	(AC002398) F25965_1 [Homo sapiens]	gb AAB81199.1	54% 100%	808 1	993 48
HAOSK79	1039663	673	blastx.2	(AJ223953) hPTTG [Homo sapiens]	emb CAA11683.1	100%	54	659
HPDRV42	1039689	674	blastx.2	P58 [Homo sapiens]	gb AAC50331.1	100%	135	1649
HOPJD35	1039703	675	blastx.2	(AF035262) BAF57 [Homo sapiens]	gb AAC04509.1	100%	121	1353
HTFNP84	1039748	676	blastx.2	ect2 [Mus musculus]	gb AAA37536.1	94% 42%	73 27	1227 125
HTHDT76	1039871	677	blastx.2	(AL117404) hypothetical protein [Homo sapiens]	emb CAB55905.1	98%	7	564
HSYEC21	1039891	678	blastx.2	adenosine triphosphatase [Homo sapiens]	gb AAA35999.1	99% 96% 37%	432 1 3819	2372 435 3890
HKGCO25	1040384	679	blastx.2	NAP [Homo sapiens]	gb AAC37544.1	99%	3	665
HNOJN70	1040385	680	blastx.2	(AF062594) nucleosome assembly protein [Rattus norvegicus]	gb AAC67388.1	100%	297	425
HADFS31	1040388	681	blastx.2	(AF214680) C3HC4- like zinc finger protein [Homo sapiens]	gb AAF30180.1	88% 92%	449 145	832 504

HJBDC89	1040569	682	blastx.2	nonhepatic arginase [Homo sapiens]	dbj BAA13158.1	100% 97%	113 651	661 1175
HTAIX75	1040591	683	blastx.2	(AK00897) unnamed protein product [Homo sapiens]	dbj BAA91413.1	47%	303	557
HODBO29	1040620	684	blastx.2	thioesterase II [Homo sapiens]	emb CAA60024.1	63%	84	527
HOCOF27	1040631	685	blastx.2	zinc-finger helicase [Homo sapiens]	gb AAC39923.1	91%	277	687
HSPSE88	1040694	686	blastx.2	tumor susceptibility protein [Homo sapiens]	gb AAC52083.1	100% 52%	110 68	922 175
HSKXM78	1040826	687	blastx.2	(AK001550) unnamed protein product [Homo sapiens]	dbj BAA91751.1	63% 75% 31%	1 108 505	654 398 618
HNLMB92	1040913	688	blastx.2	protein of unknown function [Homo sapiens]	gb AAA63232.1	96%	355	666
HE8ON57	1040925	689	blastx.2	(AF005855) anon2A5 [Drosophila melanogaster]	gb AAB81486.1	26%	50	415
HOCOC14	1040932	690	blastx.2	protein antigen [synthetic construct]	emb CAA01182.1	100%	539	1384
HOGDP49	1041049	691	blastx.2	bcn92 [Drosophila subobscura]	emb CAB55311.1	55%	226	474
HOFMK22	1041070	692	blastx.2	(AF161479) HSPC130 [Homo sapiens]	gb AAF29094.1 AF1 61479 1	94%	3	356
HBGNT69	1041900	693	blastx.2	NF-AT3 gene product [Homo sapiens]	gb AAA79175.1	100% 71% 39%	111 3 421	428 212 612

HSPSI42	1042462	694	blastx.2	ubiquitin-activating enzyme E1 [Homo sapiens]	gb AAA61246.1	40%	455	586
HPDQD23	1042649	695	blastx.2	(AF055470) ZNF258 [Homo sapiens]	gb AAD15797.1	65%	174	338
HWMB10	1042859	696	blastx.2	Me1-18 protein [Homo sapiens]	dbj BAA03074.1	95%	2717	2256
HETKL27	1042951	698	blastx.2	unknown [Homo sapiens]	gb AAA76738.1	40%	188	637
HPCTH04	1043273	699	blastx.2	ATL-derived factor/thioredoxin [Homo sapiens]	emb CAA54687.1	100%	180	494
HVVBM94	1043532	701	blastx.2	pre-pump-1 proteinase (AA -17 to 250) [Homo sapiens]	emb CAA30678.1	100%	52	852
HVVBC43	1043553	702	blastx.2	(AB000468) zinc finger protein [Homo sapiens]	dbj BAA19122.1	100%	301	870
HTPDM31	1044199	703	blastx.2	proline-rich protein MP2 - mouse (fragment)	pir A24264 A24264	31% 34% 33% 34% 53% 39% 39% 39%	632 584 632 620 742 790 790 790	48 51 138 225 659 659 659 659

HSQEK12	1044577	704	blastx.2		similar to Human Sp2 protein (M97190) [Homo sapiens]	dbj BAA05923.1	41% 38%	790 790	662 662
HPDRZ16	1044618	705	blastx.2		(AF106473) leucine-rich-domain inter-acting protein 1; LeR 1	gb AAD17989.1	72%	424	834
HVCBC44	1044635	706	blastx		CTP synthetase homolog [Mus musculus]	gb AAB17729.1	77%	3	896
HPIAC22	1044711	707	blastx.2		D-E-A-D box protein [Drosophila melanogaster]	gb AAC14192.1	42% 47%	749 20	1738 493
HSODA53	1044741	708	blastx.2		(AF213393) ATP-binding cassette protein [Mus musculus]	gb AAF31432.1	68% 73%	1316 1101	1657 1319
HE9ML74	1044760	709	blastx.2		coded for by C. elegans cDNA yk34b1.5; coded for by C. elegans 1 1 coded for by C. elegans cDNA yk46e8.3; coded fo	gb AAB00699.1	77% 41% 52% 21% 31%	940 465 6 315 450	1269 932 260 614 593
HPDRB76	1044762	710	blastx.2		adenylate kinase 2B [Homo sapiens]	gb AAC13881.1	100%	160	855
HSYDI55	1044769	711	blastx.2		(AF151819) CGI-61 protein [Homo sapiens]	gb AAD34056.1 AF151819 1	100% 97%	309 1067	1067 1174
HOGCI31	1044821	712	blastx.2		(AL110271) hypothetical protein [Homo sapiens]	emb CAB53709.1	96%	34	558

HNOKX86	1044893	713	blastx.2	(AF092138) HSPC033 [Homo sapiens]	gb AAD40380.1	100%	303	575
HTPHG81	1045117	714	blastx.2	(AL117402) hypothetical protein [Homo sapiens]	emb CAB55903.1	100%	537	1538
HPCTV49	1045379	715	blastx.2	ribosomal protein [Homo sapiens]	gb AAA36589.1	100%	127	444
HHGDK68	1045464	716	blastx.2	(AL020993) dJ5O6.1 (casein kinase 1, epsilon) [Homo sapiens]	emb CAA15888.1	89% 100%	124 765	858 1013
HNOKM3 8	1045500	717	blastx.2	transducin (beta) like 1 protein [Homo sapiens]	emb CAA73319.1	99%	120	1640
HHFUN47	1045842	718	blastx.2	(AF099028) putative transmembrane protein cmp44E [Drosophila melanogaster]	gb AAD12254.1	49% 52% 27% 83%	2 2 1007 865	1135 952 2368 882
HE9EJ82	1046856	722	blastx.2	beta-signal sequence receptor [Homo sapiens]	dbj BAA07206.1	96%	24	173
HODHS68	1047137	724	blastx.2	(AK000826) unnamed protein product [Homo]	dbj BAA91390.1	99%	528	1220

HOPKT59	1047169	725	blastx.2	sapiens] p23 [Homo sapiens]	gb AAA18537.1				814
HMCCK45	1047212	726	blastx.2	(AF182844) VPS28 protein [Homo sapiens]	gb AAF00499.1 AF1 82844_1	100%	100%	335	786
HPIAN63	1047381	727	blastx.2	(AF011792) cell cycle progression 2 protein [Homo sapiens]	gb AAB69312.1	100%	100%	206	586
						94%	94%	586	786
						78%	78%	770	892
						26%	26%	107	505
						38%	38%	762	935
						30%	30%	589	687
HNSME49	1047403	728	blastx.2	predicted using Genefinder [Caenorhabditis elegans]	emb CAB04731.1	55%	55%	114	554
HWEAC64	1047473	729	blastx.2	ORF X (AA 1 - 393) [Escherichia coli]	emb CAA31134.1	98%	98%	167	700
HOCQI51	1047483	730	blastx.2	(AB034912) WD- repeat like sequence [Homo sapiens]	dbj BAA92312.1	99%	99%	99	1004
						96%	96%	967	1479
						46%	46%	939	977
						46%	46%	1081	1119
HOPKE15	1047634	731	blastx.2	putative RNA-binding protein [Schizosaccharomyces pombe]	emb CAB11047.1	36%	36%	509	1432
						30%	30%	141	401
HMAEL73	1047646	732	blastx.2	(AL157427) hypothetical protein [Homo sapiens]	emb CAB75652.1	100%	100%	754	2463
HNOKE42	1047663	733	blastx.2	(AF116272) T-cell activation protein [Homo sapiens]	gb AAD38498.1 AF1 16272_1	100%	100%	65	445

HOFAE31	1047670	734	blastx.2	ubiquinol--cytochrome- c reductase (EC 1.10.2.2) 11K protein - bovine	pir A00119 CCBO11	93% 92%	2 180	181 221
HNOAC93	1047820	736	blastx.2	(AB016092) RNA binding protein [Homo sapiens]	dbj BAA83718.1	100%	69	305
HMEJA45	1047848	737	blastx.2	(AF091242) ATP sulfurylase/APS kinase 2 [Homo sapiens]	gb AAC64583.1	87%	166	399
HLDAS11	1047937	738	blastx.2	Similar to Human C219-reactive peptide (L34688) [Homo sapiens]	dbj BAA13448.1	99% 91% 32%	233 52 503	958 249 907
HWMJB31	1048009	739	blastx.2	DARPP- 32=DOPAMINE AND CAMP-REGULATED PHOSPHOPROTEIN.	sp G545790 G545790	94%	169	729
HAZAA31	1048188	740	blastx.2	transketolase [Homo sapiens]	gb AAA98961.1	100% 76%	778 92	1959 1033
HOCMC83	1048300	741	blastx.2	hypothetical protein [Schizosaccharomyces pombe]	emb CAB11599.1	30%	446	1279
HCFCS40	1048427	742	blastx.2	(AK001123) unnamed protein product [Homo sapiens]	dbj BAA91513.1	46%	17	1231
HVCAA65	1048595	743	blastx.2	(AF022815) proteasome subunit XAPC7 [Homo sapiens]	gb AAB81515.1	100%	191	934

HSPSI76	1048635	744	blastx.2	prolyl 4-hydroxylase alpha (II) subunit [Homo sapiens]	gb AAB71339.1	99%	208	1578
HVVCH35	1048658	745	blastx.2	(AF177385) cytochrome c oxidase assembly protein isoform 2 [Homo sapiens]	gb AAF05313.1 AF1 77385_1	99%	436	1233
HOFNI66	1048739	746	blastx.2	signal peptidase complex 25 kDa subunit [Canis familiaris]	gb AA21254.1	95%	33	710
HMSKI90	1048792	747	blastx.2	unknown protein [Homo sapiens]	gb AA88038.1	39% 28% 45% 100%	3258 1452 2039 327	2377 1180 1944 310
HSYBI49	1049151	748	blastx.2	(AF101051) senescence-associated epithelial membrane protein [Homo sapiens]	gb AAD16433.1	100%	173	805
HTXSN37	1049372	749	blastx.2	(AL080159) hypothetical protein [Homo sapiens]	emb CAB45750.1	47% 46%	1154 408	1861 530
HMUBT31	1049466	750	blastx.2	serine palmitoyltransferase, subunit I [Homo sapiens]	emb CAA6994.1	100%	11	1429
HFPDO90	1049644	751	blastx.2	Similarity to yeast hypothetical protein PIR accession number	emb CAA94801.1	100%	516	611

				1 1 this gene; cDNA EST yk504c7.3 comes from this gene; cDN						
HVVCB79	1050102	752	blastx.2	urokinase [synthetic construct]	emb CAA00829.1	95% 96%	213 1067	1139 1504		
HDPGR19	1050167	753	blastx.2	(AL031733) dJ455J7.1 (cellular repressor of E1A-stimulated genes CREG) [Homo sapiens]	emb CAB42866.1	100%	11	670		
HVVDX63	1050256	754	blastx.2	interferon regulatory factor 1 [Homo sapiens]	gb AAA36043.1	100%	212	1186		
HNOJA87	1050282	755	blastx.2	NUCLEAR FACTOR ERYTHROID 2 RELATED FACTOR 2 (NF-E2 1 ERYTHROID DERIVED 2, LIKE 2) (HEBP1).	sp Q16236 NFL2_HU MAN	99%	643	2415		
HTPGI65	1050419	756	blastx.2	ESX [Homo sapiens]	gb AAB58075.1	100%	161	1273		
HHFGN14	1050536	757	blastx.2	DNA binding protein [Homo sapiens]	dbj BAA08565.1	99% 97% 53% 31% 32% 40% 28% 46%	1818 405 121 203 465 3017 1464 2939	2738 995 810 421 833 3136 1784 2983		
HTAIN76	1050553	758	blastx.2	(AF016903) agrin precursor [Homo]	gb AAC39776.1	98% 96%	371 3	1300 416		

				sapiens]				36%	614	1252
HL YBO89	1050702	759	blastx.2	caltractin [Homo sapiens]	emb CAA51467.1			100%	42	557
HMEKJ82	1050767	760	blastx.2	serine/threonine protein kinase Krs-1 [Homo sapiens]	gb AAB17261.1			95%	196	597
HOENX17	1050969	761	blastx.2	annexin I [Oryctolagus cuniculus]	gb AAC78495.1			91% 45%	188 571	574 672
HAOSY21	1051095	762	blastx.2	(AF151048) HSPC214 [Homo sapiens]	gb AAF36134.1 AF151048_1			85%	174	569
HMWDB3 9	1051115	763	blastx.2	V-1 protein [Rattus norvegicus]	dbj BAA05167.1			99%	245	598
HAOSZ53	1051246	764	blastx.2	(AF028823) Tax interaction protein 1 [Homo sapiens]	gb AAB84248.1			100%	56	403
HSODP14	1051256	765	blastx.2	p0071 protein [Homo sapiens]	emb CAA57478.1			82% 96% 53%	244 53 385	522 247 624

HWLXZ72	1051319	766	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj BAA91205.1	39%	452	580
HUSGQ45	1051410	767	blastx.2	(AK000101) unnamed protein product [Homo sapiens]	dbj BAA90946.1	100%	18	527
HLDRAS4	1051437	768	blastx.2	cellular nucleic acid binding protein [Mus musculus]	gb AAB60490.1	100%	362	676
HNOJR48	1051533	769	blastx.2	(AJ251914) putative RNA helicase [Sus scrofa]	emb CAB63856.1	100%	94	1377
HKIXH35	1051883	770	blastx.2	Huntington Disease (HD) gene exon 1 [Homo sapiens]	emb CAA92991.1	65%	5	82
HHEBJ92	1051903	771	blastx.2	mannitol permease [Escherichia coli]	emb CAA24748.1	100%	184	2094
HPTGB84	1051953	772	blastx.2	(AF151871) CGI-113 protein [Homo sapiens]	gb AAD34108.1 AF151871.1	100%	93	668
HVCCD05	1051983	773	blastx.2	neurofibromin [Homo sapiens]	gb AAA59925.1	96%	18	968
HPYSC40	1052158	774	blastx.2	(AL050169) hypothetical protein	emb CAB43305.1	100%	20	583

HDDMT56	1052261	775	blastx.2	[Homo sapiens] (AF110775) adrenal gland protein AD-002 [Homo sapiens]	gb AAF14858.1 AF1 10775_1	100%	158	844
HVVAV0 2	1052553	776	blastx.2	sorcin CP-22 [Homo sapiens]	gb AAA60588.1	100%	59	652
HOGCS42	1052557	777	blastx.2	(AB000712) CPE- receptor [Homo sapiens]	dbj BAA22984.1	100%	226	852
HAZAA59	1052593	778	blastx.2	CUG-BP/hNab50 [Homo sapiens]	gb AAC50895.1	90%	50	745
HMALJ21	1052874	780	blastx.2	(AC002397) C9 [Mus musculus]	gb AAC36017.1	52% 49% 40%	632 243 1826	1033 650 1915
HL YAR61	1053037	781	blastx.2	nuclear protein essential for dosage compensation. [Caenorhabditis elegans]	gb AAA92286.1	64%	282	431
HLTCQ80	1053164	782	blastx.2	(AF064801) multiple membrane spanning receptor TRC8 [Homo sapiens]	gb AAC39930.1	87%	2	622
HDTDU67	1053171	783	blastx.2	54k protein (AA 1-504) [Canis familiaris]	emb CAA34385.1	100%	512	697
HMABL01	1053173	784	blastx.2	(AK001782) unnamed protein product [Homo sapiens]	dbj BAA91907.1	100%	609	1289

HACMU05	1053236	785	blastx.2	(AB002405) LAK-4p [Homo sapiens]	dbj BAA24179.2	99% 100% 60%	1804 1301 815	2631 1813 889
HOVDF79	1053369	786	blastx.2	pumilio protein [Drosophila melanogaster]	gb AAB59189.1	66% 28% 27%	39 42 42	653 518 521
HVVBJS4	1053547	787	blastx.2	CIRP [Homo sapiens]	dbj BAA11212.1	100%	95	610
HOFMU50	1053548	788	blastx.2	heparan sulfate 2- sulfotransferase [Cricetulus longicaudatus]	dbj BAA20422.1	90%	374	532
HE9MO38	1053585	789	blastx.2	phosphoenolpyruvate carboxykinase (GTP) [Homo sapiens]	emb CAA72272.1	100% 48% 53%	77 486 387	220 587 431
HOPJF55	1053725	790	blastx.2	microfibril-associated glycoprotein [Homo sapiens]	gb AAA79920.1	100%	150	698
HAOTD13	1053746	791	blastx.2	casein kinase-II beta [Oryctolagus cuniculus]	gb AAA91892.1	100%	164	808

HOCPT34	1053973	793	blastx.2	p0071 protein [Homo sapiens]	emb CAA57478.1	98%	1	2334
HFKHC64	1054015	794	blastx.2	(AF058448) herpesvirus entry protein B [Homo sapiens]	gb AAC23797.1	99%	178	1614
HOPKO37	1054085	795	blastx.2	drebrin E2 [Homo sapiens]	gb AAA16256.1	99%	2	1063
HNBVO53	1054122	796	blastx.2	p160 [Homo sapiens]	gb AAC17708.1	89%	50	2332
						46%	639	1403
						31%	1871	2380
						36%	883	1119
						90%	36	68
HCQDQ11	1054196	798	blastx.2	cytochrome c oxidase subunit 3 [Homo sapiens]	dbj BAA77671.1	31%	754	1101
						37%	952	1173
						93%	25	777
HTFML39	1054230	799	blastx.2	secreted cyclophilin-like protein [Homo sapiens]	gb AAA36601.1	100%	226	873
HOGCR32	1054235	800	blastx.2	similar to mouse CCl. [Homo sapiens]	dbj BAA13194.1	90%	15	110
						62%	160	204
						35%	128	169
HFCDDL60	1054288	801	blastx.2	(AF005038) secretory carrier membrane protein [Homo sapiens]	gb AAB62723.2	99%	152	919
						66%	2	46
HODEC13	1054400	802	blastx.2	(AC007059) Human homolog of Mus musculus wizL protein	gb AAD19818.1	87%	3	722

					[AA 4-1561] [Homo sapiens]					
HUSYA18	1054451	803	blastx.2		DNA/RNA-binding protein [Homo sapiens]		gb AAA75623.1	89% 28% 76% 39% 47%	35 161 1 591 3	553 484 39 689 59
HOCON42	1054527	804	blastx.2		DYNAMIN 2.		sp P50570 DYN2_HUMAN	95% 74% 30% 28% 38%	545 162 1276 1666 2190	1588 734 1638 1914 2246
HKMNH3 7	1054550	805	blastx.2		(AL031115) ZXDA, ZXDB (zinc finger X-linked protein) [Homo sapiens]		emb CAB36858.1	50%	37	720
HPDWP21	1054662	806	blastx.2		(AF178534) talin [Homo sapiens]		gb AAF27330.1	99% 78%	63 35	797 76
HOGCS52	1054677	807	blastx.2		(AJ245621) CTL2 protein [Homo sapiens]		emb CAB75542.1	99%	36	1388
HWMCK6 0	1054751	808	blastx.2		(AF125099) HSPC038 protein [Homo sapiens]		gb AAD39916.1 AFI25099 1	100%	258	485
HWLOU33	1054790	809	blastx.2		lac repressor protein (gtg start codon) [Escherichia coli]		gb AAA24052.1	96%	18	401
HKZBM58	1054812	810	blastx.2		sin3 associated polypeptide p18 [Homo sapiens]		gb AAC51322.1	100%	126	584
HTEOV06	1054813	811	blastx.2		sin3 associated polypeptide p18 [Homo sapiens]		gb AAC51322.1	95%	317	799

HTEHP29	1055174	813	blastx.2	sapiens] protein related N- terminus of tre oncogene [Homo sapiens]	dbj BAA02807.1	97%	7	585
HNOJJ32	1055248	814	blastx.2	PRAJA1 [Mus musculus]	gb AAC00205.1	73% 45% 30% 55%	1084 841 100 1908	1989 1620 948 1985
HFPHF52	1055304	815	blastx.2	(AB006625) The human homolog of a mouse imprinted gene, Peg3. [Homo sapiens]	dbj BAA22956.1	98% 90% 31% 27% 30% 24% 27% 26% 30% 26% 32% 24% 20% 34% 55% 26% 28% 28% 25%	2 1290 251 62 197 11 44 62 146 5 605 278 35 221 1308 1290 1437 596 1287	1348 1682 979 1276 895 1333 1324 1273 895 856 1003 1147 979 484 1445 1676 1676 829 1769

HBNMF62	1055381	816	blastx.2	(AK000538) unnamed protein product [Homo sapiens]			dbj BAA91239.1	26%	1308	1676
HTPHO72	1055426	817	blastx.2	EF-hand protein [Homo sapiens]			emb CAA55343.1	100%	98	1048
HOPKL18	1055439	818	blastx.2	stromelysin-3 precursor [Homo sapiens]			emb CAA40918.1	100%	2	1438
HTXKD84	1055467	820	blastx.2	Hlark [Homo sapiens]			gb AAC51293.1	97% 58% 55%	111 571 839	581 1191 1006
HTXRR82	1055480	821	blastx.2	myosin IC [Dictyostelium discoideum]			gb AAC37427.1	42% 32%	522 1433	1310 1504
HAIBU62	1055582	822	blastx.2	(AL133070) hypothetical protein [Homo sapiens]			emb CAB61393.1	99%	154	1518
HDTAY29	1055632	823	blastx.2	(AJ250865) TESS 2 [Homo sapiens]			emb CAB65119.1	99%	65	625
HCOQD79	1055767	824	blastx.2	(AF118394) putative			gb AAD45242.1 AF1	98%	201	689

					nucleotide binding protein [Homo sapiens]	18394_1	100%	76	210
HAMHN1 2	1055899	825	blastx.2		Similarity to EGF domain; cDNA EST EMBL:T02406 comes from this gene [Caenorhabditis elegans]	emb CAA94773.1	28% 36%	53 263	559 562
HODIY67	1056000	826	blastx.2		(AF167160) protein inhibitor of activated STAT-1 [Homo sapiens]	gb AAD49722.1 AF167160_1	99%	8	1957
HNTRS57	1056097	827	blastx.2		similar to ankyrin motifs; cDNA EST CEMSH89F comes from this 11 cDNA EST EMBL:D33056 comes from this gene; cDNA EST E	emb CAA99881.1	45%	2	853
HUKFL74	1056102	828	blastx.2		fsh-like protein [Mus musculus]	emb CAA66186.1	98%	1	168
HTEBF05	1056104	829	blastx.2		Wnt7a protein [Homo sapiens]	gb AAC51319.1	100%	9	344
HOPKD19	1056275	830	blastx.2		B-cell receptor associated protein [Homo sapiens]	gb AAB51324.1	100%	188	1084
HLICR58	1056290	831	blastx.2		(AF181467) protein Z-dependent protease inhibitor precursor [Homo sapiens]	gb AAD53962.1 AF181467_1	98%	3	932

HAAJAH48	1056400	833	blastx.2	IDN4-GGTR14 PROTEIN.	sp Q9Y6Y5 Q9Y6Y5	100%	7	111
HSKJC61	1056407	834	blastx.2	(AF095448) putative G protein-coupled receptor [Homo sapiens]	gb AAC98506.1	100% 33%	366 265	1436 327
HEEBK29	1056454	835	blastx.2	(AF018081) type XVIII collagen [Homo sapiens]	gb AAC39658.1	95% 42% 43% 42% 46% 44% 45% 44% 38% 36% 26% 38% 35% 34% 37% 31% 25% 36% 44% 44% 29% 29% 32% 40%	1036 1036 1033 1036 1264 1429 1486 1036 1594 1327 1032 743 743 668 3777 1015 3672 3572 658 728 1432 2846 565 4021	3060 2118 2133 2166 2166 2118 2118 1632 2118 2109 2117 940 934 931 4139 1251 4190 3694 771 841 1587 3154 771 4119

						784
						901
						910
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						1859
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43%	2117	1863
30%	2680	2204
32%	1468	1046
32%	2707	2207
45%	4790	4695
28%	2997	2791
52%	3599	3534
32%	2394	2077
48%	3629	3555
37%	4135	3983
27%	2394	1987
29%	2457	2083
29%	3692	3489
51%	2020	1934
32%	3997	3788
33%	3015	2797
36%	3877	3677
32%	3862	3677
48%	3163	3083
28%	2988	2839
29%	4843	4643
33%	2394	2050
32%	1183	1055
30%	894	676
25%	2825	2706
33%	178	80
38%	2892	2785
36%	2157	2050
61%	4128	4090
50%	4131	4090

HCHMM1 9	1056617	836	blastx.2	Lutheran blood group glycoprotein [Homo sapiens]	emb CAA58449.1	47%	2801	2751
HE8NG02	1056625	837	blastx.2	(AL035608) dJ479J7.1 (similar to CHONDROMODULI N-1) [Homo sapiens]	emb CAB55680.1	93%	271	1011
HWHKD2 2	1056654	838	blastx.2	(AF094760) RFXANK [Homo sapiens]	gb AAC69883.1	59%	56	715
HOCPI87	1056666	839	blastx.2	protein-tyrosine- phosphatase (EC 3.1.3.48) 11A - human	pir A60345 A60345	99%	34	1125
HAAAAA59	1056671	840	blastx.2	(AF151793) ALG-2 interacting protein 1 [Homo sapiens]	gb AAF08220.1 AF1 51793_1	99% 56%	162 6007	2765 6048
HOSBJ18	1056672	841	blastx.2	finger protein 1, placental - human	pir A32891 A32891	99% 68% 65% 65% 62% 61% 56% 40% 61%	752 830 914 998 590 548 482 2203 2239	2026 2095 2191 2221 1858 1774 1606 2322 2277
HUSGX12	1056736	842	blastx.2	GATA-6 [Homo sapiens]	dbj BAA22621.1	100%	2	838
HPDRG02	1056764	843	blastx.2	protein disulfide isomerase-related protein [Homo sapiens]	gb AAA58460.1	99% 42% 41%	26 26 1031	1405 523 1366

HKZBB48	1056767	844	blastx.2	(AB022663) HFB30 [Homo sapiens]	dbj BAA78677.1	40%	1055	1327
HHAWB1 9	1056774	845	blastx.2	(AF140242) encephalopsin [Homo sapiens]	gb AAD32671.1 AF1 40242_1	98%	111	1316
HHATP38	1056786	846	blastx.2	VEGF related factor isoform VRF167 precursor [Homo sapiens]	gb AAA91463.1	100%	87	650
HVVBE07	1056801	847	blastx.2	(AF003944) ovalbumin upstream promoter beta nuclear receptor rCOUPb [Rattus norvegicus]	gb AAB61297.1	97% 32%	702 185	983 328
HKAHB85	1056804	848	blastx.2	ear-2 gene product [Homo sapiens]	emb CAA31282.1	98%	4	831
HUSXA15	1056810	849	blastx.2	(AP000616) similar to RING-H2 finger protein RHA1a (AF078683) [Oryza sativa]	dbj BAA85438.1	75% 62%	300 295	205 167
HNOCH54	1056839	850	blastx.2	Protein sequence and annotation available soon via Swiss-Prot; 1 [Homo sapiens]	emb CAA62188.1	30% 26% 26% 23% 24% 24% 24% 26%	727 556 727 703 703 706 892 703	1833 1875 1779 1809 1782 1812 1827 1812

							24%	727	1782
							21%	724	1833
							24%	733	1827
							25%	883	1827
							26%	856	1824
							22%	28	1236
							23%	883	1833
							21%	865	1836
							22%	856	1827
							23%	988	1833
							22%	730	1836
							24%	4	852
							25%	1	876
							22%	715	1782
							32%	7	408
							31%	145	690
							24%	31	876
							23%	976	1830
							28%	1	456
							25%	31	852
							22%	16	885
							23%	382	1359
							23%	745	1527
							20%	22	843
							26%	1	906
							28%	7	408
							26%	1	411
							24%	424	1296
							30%	10	411
							23%	724	1251

25%	259	690
31%	22	411
25%	430	1293
34%	427	681
21%	1054	1635
35%	250	501
24%	427	1251
24%	430	1311
30%	1	369
25%	7	612
23%	427	1383
28%	352	678
23%	730	1782
31%	250	501
34%	424	684
35%	427	681
24%	1108	1743
32%	415	681
26%	430	1356
26%	313	675
29%	427	681
27%	322	690
27%	322	675
30%	430	690
30%	343	693
36%	1648	1830
33%	430	684
31%	412	675
22%	430	1383
22%	1369	1929

[illegible]

					1554
					768
					720
					1383
					693
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					1311
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					576
					690
					1818
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					1827
					1401
					1869
					573
					771
					1077
					1953
					1635
					1527
					681
					681
					699

							32%	1660	1812
							25%	1648	1830
							34%	1648	1830
							24%	1333	1782
							23%	415	684
							26%	1648	1827
							26%	1273	1644
							29%	1006	1254
							21%	1009	1527
							29%	418	654
							22%	1282	1533
							23%	1582	1827
							32%	430	678
							28%	148	432
							18%	1117	1488
							27%	1648	1812
							21%	1123	1509
							31%	16	420
							29%	1618	1827
							25%	1123	1527
							27%	1012	1347
							20%	1390	1644
							25%	382	681
							27%	1369	1782
							22%	352	675
							23%	427	1311
							25%	427	678
							32%	430	654
							25%	427	684
							29%	430	693

27%	424	684
23%	1648	1929
28%	1648	1929
28%	1018	1383
25%	1651	1827
22%	1648	1830
26%	1384	1587
26%	1648	1827
24%	1648	1830
21%	1012	1452
32%	430	621
27%	1669	1812
23%	1393	1635
30%	1648	1806
32%	1123	1242
23%	1369	1929
25%	1648	1827
34%	427	567
40%	1648	1782
28%	1057	1239
24%	961	1383
26%	1357	1554
25%	1648	1800
22%	976	1518
28%	1222	1509
26%	724	1023
22%	4	300
28%	1390	1560
18%	1123	1554
22%	1648	1818

20%	907	1245
25%	1288	1584
20%	1075	1905
22%	1120	1383
21%	1207	1806
26%	409	675
25%	28	411
22%	1285	1509
26%	16	435
25%	1648	1917
23%	1648	1812
37%	1463	1567
18%	1072	1530
21%	1369	1929
24%	1648	1782
25%	1642	1782
22%	1012	1401
27%	338	454
22%	1651	1839
23%	1174	1509
26%	1357	1734
23%	1369	1626
21%	1375	1635
16%	754	1788
26%	440	631
24%	427	798
25%	1	165
25%	124	429
23%	1651	1800
22%	1648	1830

[illegible]

HBHAC29	1057157	857	blastx.2	myelin-associated glycoprotein precursor [Homo sapiens]	gb AAA59545.1	98% 90% 39% 100%	2 427 20 786	424 759 400 815
HTPFW87	1057170	858	blastx.2	carboxyl ester lipase [Homo sapiens]	gb AAA51973.1	98% 34% 39% 35% 37% 36% 36% 34% 34% 34%	5 1620 2154 2160 2136 2160 2160 2109 2010 1977	2206 2084 1687 1690 1687 1705 1768 1681 1687 1687
HISAF60	1057212	859	blastx.2	junctional adhesion molecule [Mus musculus]	gb AAC32982.1	38%	116	988
HRABO80	1057219	860	blastx.2	(AL050143) hypothetical protein [Homo sapiens]	emb CAB43289.1	100%	1590	1937
HADDF30	1057260	861	blastx.2	transcription regulatory protein Evi-1, short form - human	pir B60191 B60191	98% 22%	1 7	1155 858
HDAAS58	1057272	862	blastx.2	(AC005003) similar to zinc finger protein MAZ [Homo sapiens]; similar to AAB04121.1 (PID:g995935)	gb AAF01349.1 AC005003_1	77%	263	676
HSDZG15	1057307	863	blastx.2	Homology with Squid retinal-binding protein	emb CAA91418.1	68% 47%	3 1212	713 1274

HPDVY52	1057393	864	blastx.2	(PIR Acc. No. 11 laminin alpha 5 chain [Mus musculus])	gb AAC53430.1	64% 47%	6 1165	1196 1380
HHESW02	1057478	865	blastx.2	(AF062075) leupaxin [Homo sapiens])	gb AAC16014.1	100% 34%	95 896	1252 1258
HVVBW8 4	1057561	866	blastx.2	(AB003184) ISLR [Homo sapiens])	dbj BAA22848.1	100%	342	1625
HSLJC80	1057797	868	blastx.2	prolargin [Homo sapiens])	gb AAC18782.1	32% 32% 28% 28% 29% 34%	353 899 686 1109 1663 262	1228 1573 1420 1657 1980 357
HEOAD12	1057842	869	blastx.2	(AF116865) hedgehog- interacting protein [Mus musculus])	gb AAD31172.1 AF1 16865_1	70%	533	1069
HVVBT41	1057880	870	blastx.2	(AL035587) dJ475N16.1 (CTG4A) [Homo sapiens])	emb CAB75301.1	100%	439	1272
HAZAE42	1057915	871	blastx.2	cellular retinol binding protein [Homo sapiens])	emb CAA30318.1	100%	255	659
HPRBN60	1057948	872	blastx.2	(AF002282) alpha- actinin-2 associated LIM protein [Homo sapiens])	gb AAC16672.1	99%	72	1019
HOVCZ68	1057958	873	blastx.2	folliculin 1 precursor - human	pir A32141 A32141	99%	1	987
H6EDF71	1057979	874	blastx.2	antigenic surface determinant OA3	emb CAA49196.1	99%	92	1021

HVVBX28	1058458	887	blastx.2	[Homo sapiens] SH3 domain-containing protein SH3P17 [Homo sapiens]	gb AAC50592.1	96% 49% 36%	53 308 104	493 466 301
HVVBI38	1058475	888	blastx.2	factor H [Homo sapiens]	emb CAA68704.1	99% 25% 26% 25% 28% 27%	294 336 294 501 1083 1185	2291 2264 2291 2219 2288 2099
HUKEJ46	1058539	889	blastx.2	(AF081507) signaling molecule LEFTY-B [Homo sapiens]	gb AAC33967.1	98% 99%	479 70	1165 489
HDTFT47	1058588	890	blastx.2	lymphocyte antigen [Homo sapiens]	gb AAA36236.1	98% 91%	2 258	268 398
HSSFS71	1058596	891	blastx.2	ESP1/CRP2 [Homo sapiens]	dbj BAA07703.1	95% 77% 34%	29 41 219	460 265 512
HSDJH63	1058612	892	blastx.2	(AB045180) toll-like receptor 9 [Homo sapiens]	dbj BAB19259.1	92% 100% 52% 45% 58%	192 107 128 122 131	1358 190 184 181 181
HAHGD24	1058622	893	blastx.2	laminin alpha 5 chain [Mus musculus]	gb AAC53430.1	61%	80	1024
HTAEV85	1058723	894	blastx.2	(AJ005566) SPR2H protein [Mus musculus]	emb CAA06595.1	43% 64% 50% 35%	408 2500 1784 544	256 2459 1719 485
HPMME44	1058928	895	blastx.2	HCMVUL126 [human]	emb CAA35328.1	96%	78	329

HSPSG28	1058977	897	blastx.2	herpesvirus 5] 26S protease subunit [Sus scrofa]	emb CAA61863.1	99% 88%	483 56	1679 82
HTGFW12	1059006	898	blastx.2	homolog of yeast mutL gene [Homo sapiens]	gb AA63923.1	98% 94% 68%	83 1522 1431	1438 2670 1667
HOFMT75	1059050	899	blastx.2	cathepsin D [Homo sapiens]	gb AAA51922.1	87% 80%	7 414	456 743
HARNB17	1059085	900	blastx.2	HCMVUL126 [human herpesvirus 5]	emb CAA35328.1	98%	241	492
HPDRG65	1059102	901	blastx.2	(AK000496) unnamed protein product [Homo sapiens]	dbj BAA91205.1	69% 69% 83%	434 253 288	273 128 253
HAOSG15	1059145	902	blastx.2	(AF026291) chaperonin containing t-complex polypeptide 1, delta subunit; CCT- delta [Homo sapiens]	gb AAC96010.1	100%	160	1776
HHEND31	1059180	903	blastx.2	(AF117330) unknown [Rattus norvegicus]	gb AAD26207.1 AF1 17330 1	73%	175	1827
HBMSN62	1059186	904	blastx.2	ZZ:beta-Gal' IgG- binding fusion protein [unidentified cloning 1]	gb AAB00807.1	86%	1102	1251
HOVCJ46	1059241	905	blastx.2	(AF037272) WAP four-disulfide core	gb AAC40055.1	87% 70%	41 175	214 336

HWLEP14	1059394	906	blastx.2	domain protein [Rattus norvegicus] (AF117646) long CBL-3 protein [Homo sapiens]	gb AAD34341.1 AF117646_1	99%	92	1348
HDABR73	1059532	908	blastx.2	bikunin [Homo sapiens]	gb AAC02781.1	100%	436	1191
HOGAJ24	1059626	909	blastx.2	Similar to Human tesican (S33293) [Homo sapiens]	dbj BAA13404.1	100%	427	1698
HTJMV05	1059692	910	blastx.2	protein tyrosine phosphatase [Homo sapiens]	gb AAA50779.1	100%	5	685
HOOIL70	1059710	911	blastx.2	hematopoietic cell phosphatase [Homo sapiens]	gb AAA35963.1	100% 37% 32% 30%	212 188 2209 2219	1996 508 2310 2296
HUNAE87	1059743	912	blastx.2	(AF062317) p120 catenin isoform 1B [Homo sapiens]	gb AAC39802.1	99%	158	955
HTPHO01	1059764	913	blastx.2	(AF169284) LIM and cysteine-rich domains protein 1 [Homo sapiens]	gb AAF34411.1	97%	125	1048
HDPWK69	1059784	914	blastx.2	(AL031629) similar to RNA recognition motif. (aka RRM, RBD, or 1 1)	emb CAA20980.2	52%	275	496

HPCOK03	1059849	915	blastx.2	(AF008551) aurora-related kinase 1 [Homo sapiens]	gb AAC12708.1	99%	59	1267
HOOJC15	1059967	917	blastx.2	(AL117639) hypothetical protein [Homo sapiens]	emb CAB56027.1	98%	575	1216
HODFG47	1059969	918	blastx.2	(AF132856) suppressor of G2 allele of skp1 homolog [Homo sapiens]	gb AAD30062.1	100%	215	1213
HBIPC05	1060137	919	blastx.2	(AF078798) extracellular signal-regulated kinase 7; ERK7 [Rattus norvegicus]	gb AAD12719.1	62%	23	832
HOPJJ32	1060193	920	blastx.2	replication protein A 14kDa subunit [Homo sapiens]	gb AAA58350.1	100%	447	635
HNOBN20	1060382	921	blastx.2	unknown protein [Homo sapiens]	gb AAA88036.1	43% 47%	1362 1487	1150 1380
HOCPX74	1060391	922	blastx.2	(AL137714) hypothetical protein [Homo sapiens]	emb CAB70887.1	91%	18	656
HTEPP27	1060415	923	blastx.2	PF20 [Chlamydomonas reinhardtii]	gb AAB41727.1	39%	207	581
HL YAJ79	1060495	924	blastx.2	ATPase subunit 6 [Homo sapiens]	dbj BAA07295.1	79%	197	808
HCOOQ11	1060656	925	blastx.2	sialidase [Homo sapiens]	emb CAA55356.1	70% 100%	1 189	189 308

HWMGI51	1060711	926	blastx.2	hypothetical protein [Synecocystis sp.]	dbj BAA10294.1	41%	16	615
HDPJG33	1060780	927	blastx.2	GTP binding protein [Mus musculus]	emb CAA36803.1	78% 68% 37%	543 439 933	863 699 1061
HL YAE20	1060967	928	blastx.2	hypothetical protein 2 (rRNA external transcribed spacer) - 1	pir S12206 S12206	67%	1002	1259
HKZAR86	1060972	929	blastx.2	ERF-2 [Homo sapiens]	emb CAA55592.1	99%	322	1302
HAOTX62	1061036	930	blastx.2	SPIN protein [Homo sapiens]	emb CAA75163.1	100%	77	298
HOCQG58	1061180	931	blastx.2	26S PROTEASOME REGULATORY SUBUNIT S2 (P97) (TUMOR 1 1	sp Q13200 PSD2_HU MAN	100%	63	2786
HOFNH33	1061185	932	blastx.2	MRAS2 gene product [Mucor racemosus]	gb AAA83994.1	31%	260	823
HAIJQ63	1061238	933	blastx.2	matrin 3 [Rattus norvegicus]	gb AAB63955.1	90% 94% 54% 98% 24% 31% 35% 35% 40%	1038 293 2361 3308 2634 2646 1755 3362 3837	2570 1105 2810 3478 2813 2759 1847 3454 3896
HVVBK70	1061258	934	blastx.2	(AJ000414) Cdc42- interacting protein 4 [Homo sapiens]	emb CAA04062.1	92% 100% 28%	653 31 627	1276 468 1055
HVVBA82	1061332	935	blastx.2	(AL022313)	emb CAA18439.1	100%	3	500

HWLLG38	1061388	936	blastx.2	dJ1119A7.1 (mitochondrial thioredoxin) [Homo sapiens]	dbj BAA01706.1	100%	114	692
HTPCH84	1061466	937	blastx.2	neurocalcin [Bos taurus] (AF104419) decoy receptor 3 [Homo sapiens]	gb AAD03056.1	99% 100%	103 938	945 1000
HLGDA34	1061543	939	blastx.2	(AK00496) unnamed protein product [Homo sapiens]	dbj BAA91205.1	71% 73%	3 1766	254 1641
HAICB08	1061629	940	blastx.2	rhoHP1 [Homo sapiens]	dbj BAA19652.1	100%	3	326
HVVAW6 0	1061694	941	blastx.2	(AF151882) CGI-124 protein [Homo sapiens]	gb AAD34119.1 AF1 51882.1	100%	244	741
HPDVB50	1061708	942	blastx.2	(AJ002030) progesterone binding protein [Homo sapiens]	emb CAA05152.1	100%	33	206
HAZAY40	1061765	943	blastx.2	tight junction (zonula occludens) protein ZO- 1 [Homo sapiens]	gb AAA02891.1	100%	3	1631
HACMZ51	1061766	944	blastx.2	contains 10 ankyrin- like repeats; similar to human ankyrin, 1 bursaria Chlorella virus 1]	gb AAC96986.1	33% 28% 32% 30%	118 73 100 88	957 726 657 561
HUXAL63	1061790	945	blastx.2	100 kDa protein [Rattus norvegicus]	emb CAA45756.1	98%	2	1300

HLCLX57	1061886	946	blastx.2	latent transforming growth factor-beta- binding protein-2, 1 1	gb AAB37459.1	99% 37% 32% 34% 45% 40% 41% 42% 38% 36% 32% 34% 34% 34% 34% 43% 35% 45% 47% 31% 46% 35% 40% 29% 35% 38% 40% 41% 34% 29% 28%	3 447 27 21 696 693 696 681 666 693 666 684 657 666 12 696 6 15 9 3 678 3 9 3 3 246 837 3 15 99	953 941 398 398 941 914 941 929 941 914 989 929 929 941 167 929 149 149 377 155 914 149 365 155 143 371 944 143 188 215
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HMALF63	1061935	947	blastx.2	factor activating exoenzyme S [Bos taurus]	gb AAA30514.1	35%	118	252
						22%	280	483
						57%	427	468
HACMR36	1062057	948	blastx.2	(AK000963) unnamed protein product [Homo sapiens]	dbj BAA91446.1	86%	181	1290
						99%	29	391
						27%	1141	1323
						34%	1460	1528
						33%	1710	1805
						27%	1883	2170
						50%	1506	1553
HAOSM08	1062079	949	blastx.2	(AF059617) serum- inducible kinase [Homo sapiens]	gb AAC14573.1	99%	284	2338
HTEFM89	1062084	950	blastx.2	(AF162680) STRIN protein [Homo sapiens]	gb AAD46623.2 AF1 62680.1	99%	500	1234
HCHAK72	1062123	951	blastx.2	(AF113596) mosaic serine protease epitheliasin [Mus musculus]	gb AAF21308.1	47%	95	1165
HPAME12	1062139	952	blastx.2	retinoic acid- and interferon-inducible 58K protein RI58 [Homo sapiens]	gb AAA84934.1	100%	209	1654
HCE4F10	1062309	954	blastx.2	(AL050060) hypothetical protein [Homo sapiens]	emb CAB43253.1	97%	798	1535

HBCBE63	1062328	955	blastx.2	(AF007170) unknown [Homo sapiens]	gb AAC39582.1	100%	191	790
						69%	87	251
						87%	25	96
						57%	1	63
HSSJO19	1062346	956	blastx.2	endonuclease G [Bos taurus]	emb CAA51320.1	97%	361	248
						24%	1093	887
HE8NQ23	1062369	957	blastx.2	(AF062006) orphan G protein-coupled receptor HG38 [Homo sapiens]	gb AAC28019.1	99%	574	1419
						100%	416	571
						87%	171	263
HTELJ95	1062431	958	blastx.2	(AB006679) ATP binding protein [Homo sapiens]	dbj BAA21881.1	99%	272	949
HTPCP50	1062435	959	blastx.2	(AF111069) latrophilin 2 splice variant baaae [Bos taurus]	gb AAD05305.1	38%	417	2129
						47%	1997	2044
HPKIT82	1062544	961	blastx.2	(AF152495) protocadherin beta 2 [Homo sapiens]	gb AAD43756.1 AF1 52495_1	98%	2	1663
						30%	20	1297
						26%	26	1267
HE2LW42	1062574	962	blastx.2	(AF090934) PRO0518 [Homo sapiens]	gb AAF24048.1 AF0 90934_1	100%	1267	1079
HOGCE44	1062586	963	blastx.2	protein tyrosine phosphatase (EC 3.1.3.48) [Homo sapiens]	gb AAA36528.1	99%	156	2561
HOVJJ72	1062626	964	blastx.2	latent TGF-beta binding protein-4 [Homo sapiens]	emb CAA73944.1	85%	547	1782
						91%	203	559
						85%	1	204

30%	562	1728
45%	1	363
29%	16	1296
30%	16	885
33%	1537	1869
33%	1132	1920
41%	4	276
32%	1465	1926
48%	1	198
38%	1507	1761
35%	1435	1734
36%	1474	1761
29%	1366	1881
47%	4	198
29%	553	1116
38%	1453	1743
36%	34	198
34%	16	153
23%	212	583
60%	209	268
25%	562	1164
66%	215	268
53%	215	298
42%	206	268
32%	410	556
52%	215	280
55%	215	268
38%	212	328
40%	212	301
29%	245	493

							37%	215	346
							37%	212	307
							42%	209	271
							29%	4	210
							55%	215	265
							30%	212	310
							29%	841	921
							32%	1766	1930
							32%	1667	1861
							58%	230	265
							29%	215	460
							56%	1764	1838
							58%	1792	1842
							63%	1859	1891
							40%	1391	1450
							37%	12	95
							37%	254	406
							66%	549	584
							87%	838	569
							34%	1633	1421
							69%	2007	1969
							30%	1621	1421
							38%	1024	938
							30%	1552	1352
							63%	1525	1493
							70%	1295	1266
HODBT14	1062628	965	blastx.2	guanine nucleotide exchange factor [Homo sapiens]	gb AAA35914.1	100%	15	320	
HBOEB83	1062629	966	blastx.2	thrombospondin-4	emb CAA79635.1	95%	4	1392	

HODCT96	1062631	967	blastx.2	[Homo sapiens] repressor transcriptional factor [Homo sapiens]	gb AAA79179.1	74% 74% 73% 56% 40% 69% 69% 41% 78% 67% 66% 71% 73% 77% 71% 75% 70% 69% 71% 64% 63% 72% 38% 49%	2 2 2 2 2 2 2 2 250 2 2 250 250 259 250 250 250 250 250 250 250 250 253	247 247 247 337 514 247 247 490 468 247 259 468 462 468 468 456 471 468 468 468 468 423 313 459
HTXJE60	1062655	968	blastx.2	(AK000642) unnamed protein product [Homo sapiens]	dbj BAA91301.1	50%	171	1112
HUSIQ62	1062679	969	blastx.2	high mobility group 2 protein [Homo sapiens]	gb AAA58659.1	100% 31%	188 143	814 472

HKBAK29	1062718	971	blastx.2	(AF161525) HSPC177 [Homo sapiens]	gb AAF29140.1 AF1 61525_1	100% 93%	975 42	1562 140
HPMCX26	1062743	972	blastx.2	LIMK-2 [Homo sapiens]	dbj BAA08312.1	97%	365	649
HFKEHF51	1062785	973	blastx.2	(AF177203) cerebral cell adhesion molecule [Homo sapiens]	gb AAD51367.1 AF1 77203_1	99%	360	1910
HUCPE28	1062795	974	blastx.2	extensin [Volvox carteri]	emb CAA46283.1	36% 36% 36% 38% 27%	728 728 735 734 119	1063 958 1055 949 460
HPWAH30	1062840	975	blastx.2	zinc finger protein [Homo sapiens]	gb AAA59469.1	98% 77% 76% 76% 81% 75% 77% 75% 74% 76% 74% 75% 74%	1 1 1 1 1 1 1 1 1 1 10 1	705 705 705 705 666 702 696 705 705 705 705 705 705

							74%	1	705
							72%	1	705
							73%	1	705
							72%	1	705
							71%	1	705
							72%	1	705
							71%	1	705
							71%	1	705
							71%	1	705
							70%	1	705
							71%	1	705
							71%	1	705
							71%	1	705
							67%	1	705
							63%	1	705
							59%	163	705
							52%	702	815
							51%	723	815
							51%	723	815
							42%	702	815
							48%	723	815
							42%	702	815
							45%	723	815
							39%	702	815
							45%	723	815
							39%	702	815
							39%	702	815
							46%	726	815
							45%	723	815

H6EDQ51	H6EDQ51R	976	blastx.2	cytochrome b [Homo sapiens]	gb AAA19775.1	36%	702	815
HA5AU29	HA5AU29R	977	blastx.2	amyloid-beta protein [Homo sapiens]	gb AAB59501.1	85%	2	806
HACBX26	HACBX26R	978	blastx.2	NADH dehydrogenase subunit 1 [Homo sapiens]	dbj BAA07290.1	89%	2	815
HACMH72	HACMH72R	982	blastx.2	TraC protein (gtg start codon) [Plasmodium falciparum]	gb AAA24905.1	93%	35	815
HACMS55	HACMS55R	985	blastx.2	(AF013215) ribosomal protein S2 [Bos taurus]	gb AAB65437.1	100%	3	809
HACMX77	HACMX77R	986	blastx.2	protein kinase C inhibitor-1 [Homo sapiens]	gb AAA82926.1	100%	42	815
HACMZ45	HACMZ45R	987	blastx.2	Keratin 8 [Homo sapiens]	emb CAA52882.1	100%	3	815

HACND54	HACND54 R	988	blastx.2	(AC003956) acetylactate synthase [Homo sapiens]	gb AAB94632.1	67% 78%	2 267	466 404
HACNF21	HACNF21R	991	blastx.2	40-kDa keratin protein [Homo sapiens]	gb AAA36044.1	86%	3	608
HACNF41	HACNF41R	992	blastx.2	cytokeratin 8 (279 AA) [Homo sapiens]	emb CAA31376.1	100%	2	91
HACNI47	HACNI47R	993	blastx.2	ribosomal protein S17 [Homo sapiens]	gb AAA60284.1	95%	96	500
HADET44	HADET44R	996	blastx.2	URF 1 (NADH dehydrogenase subunit) [Homo sapiens]	emb CAA24026.1	95% 92%	62 481	481 522
HAHHD12	HAHHD12 R	998	blastx.2	(AF016252) Spinophilin [Rattus norvegicus]	gb AAB72005.1	96%	1	96
HALSG11	HALSG11R	999	blastx.2	(AC004544) cytochrome C oxidase; match to P14406 (PID:g117121) [Homo sapiens]	gb AAC12952.1	74% 74%	116 54	376 134
HAOSB87	HAOSB87R	1002	blastx.2	delta- aminolevulinate synthase (housekeeping) [Homo sapiens]	emb CAA39794.1	73%	1	549
HAOSE70	HAOSE70R	1004	blastx.2	acidic ribosomal phosphoprotein (P1) [Homo sapiens]	gb AAA36471.1	88% 55%	166 273	267 359
HAOSF68	HAOSF68R	1005	blastx.2	laminin-binding protein [Homo sapiens]	gb AAA36161.1	90%	76	576

HAOSG95	HAOSG95 R	1006	blastx.2	ribosomal protein S20 [Homo sapiens]	gb AAA60286.1	82%	111	452
HAOSI79	HAOSI79R	1007	blastx.2	ribosomal protein L7 [Homo sapiens]	gb AAA03081.1	95%	10	330
HAOSJ27	HAOSJ27R	1008	blastx.2	polyubiquitin - tobacco hornworm (fragments)	pir JH0302 JH0302	100%	2	142
						100%	2	142
						75%	135	233
						73%	135	224
						49%	156	332
						39%	223	405
						72%	223	255
HAOSJ33	HAOSJ33R	1009	blastx.2	lactate dehydrogenase- A [Homo sapiens]	emb CAA26879.1	95%	3	353
HAOSK38	HAOSK38 R	1011	blastx.2	Ku protein subunit [Homo sapiens]	gb AAA36155.1	100%	4	303
HAOSL36	HAOSL36R	1012	blastx.2	S- adenosylhomocysteine hydrolase [Homo sapiens]	gb AAA51681.1	94%	30	200
						96%	224	379
						71%	336	494
						88%	1	27
HAOSL47	HAOSL47R	1013	blastx.2	(AF155581) proteasome subunit beta 7 [Danio rerio]	gb AAD53521.1 AF1 55581_1	91%	86	343
						93%	4	96
						55%	432	572
						80%	340	429
HAOTE06	HAOTE06R	1021	blastx.2	(AF132947) CGI-13 protein [Homo sapiens]	gb AAD27722.1 AF1 32947_1	98%	2	451
HAOTF90	HAOTF90R	1023	blastx.2	carboxyl methyltransferase [Homo sapiens]	dbj BAA02991.1	94%	3	170
HAOTI07	HAOTI07R	1026	blastx.2	HL23 ribosomal protein [Homo sapiens]	emb CAA39417.1	96%	36	365
						84%	398	454

HAOTT79	HAOTT79R	1027	blastx.2	CYTOSKELETON-ASSOCIATED PROTEIN CKAPI (TUBULIN FOLDING COFACTOR B).	sp Q99426 CKAP_HUMAN	80%	361	405
HAOTU79	HAOTU79R	1028	blastx.2	ME491 antigen precursor (AA -1 to 237) [Homo sapiens]	emb CAA30792.1	97%	57	452
HAOTW22	HAOTW22R	1029	blastx.2	KERATIN, TYPE II CYTOSKELETAL 8 (CYTOKERATIN 8) (K8) (CK 1)	sp P05787 K2C8_HUMAN	100%	1	201
HAPNK45	HAPNK45R	1032	blastx.2	cytochrome c oxidase subunit 1 [Homo sapiens]	dbj BAA07292.1	90%	2	262
						79%	274	516
						90%	473	535
						100%	261	281
HAPPR43	HAPPR43R	1033	blastx.2	hypothetical 18K protein - goldfish mitochondrion	pir JC1348 JC1348	42%	146	472
HAQML40	HAQML40R	1035	blastx.2	ribosomal protein L39 [Homo sapiens]	dbj BAA11465.1	98%	106	258
HAUAK54	HAUAK54R	1037	blastx.2	CAG-isl 7 [Homo sapiens]	gb AAC16021.1	62%	12	245
HAZAC68	HAZAC68R	1042	blastx.2	lumican [Homo sapiens]	gb AAA91639.1	97%	3	587
						26%	3	551
						36%	3	500
HAZAD13	HAZAD13R	1043	blastx.2	human elongation factor-1-delta [Homo sapiens]	emb CAA79716.1	74%	53	478
						60%	250	555

HAZAE44	HAZAE44R	1045	blastx.2	fibronectin precursor [Homo sapiens]	emb CAA26536.1	98% 46% 40% 39% 36% 35% 33%	84 105 105 123 69 105 18	512 335 413 347 392 344 347
HAZAG23	HAZAG23R	1046	blastx.2	unnamed protein product [Homo sapiens]	emb CAA62211.1	96%	2	466
HAZAI89	HAZAI89R	1051	blastx.2	KERATIN, TYPE II CYTOSKELETAL 8 (CYTOKERATIN 8) (K8) (CK 1)	sp P05787 K2C8_HU MAN	100%	72	260
HAZAJ72	HAZAJ72R	1052	blastx.2	protein arginine N- methyltransferase [Rattus norvegicus]	gb AAC52622.1	97% 58% 81% 34%	1 497 579 537	537 580 611 605
HAZAQ80	HAZAQ80R	1053	blastx.2	(AF064205) dynactin 1 p135 isoform [Homo sapiens]	gb AAD55812.1	100%	84	389
HAZBI39	HAZBI39R	1056	blastx.2	(AL031427) dJ167A19.3 (novel protein) [Homo sapiens]	emb CAB46723.1	100%	83	424
HAZBI69	HAZBI69R	1057	blastx.2	transmembrane protein	emb CAA66947.1	100%	3	323

HBJHY72	HBJHY72R P00B	1063	blastx.2	[Oryctolagus cuniculus] (AL117434) hypothetical protein [Homo sapiens]	emb CAB55922.1	98%	1	297
HBXCG52	HBXCG52 R	1065	blastx.2	(AK001079) unnamed protein product [Homo sapiens]	dbj BAA91496.1	89% 46%	371 457	427 606
HCACS3	HCACS3R P00A	1067	blastx.2	histone H3 [Spisula solidissima]	gb AAA29965.1	90% 100% 86%	313 116 506	507 244 574
HCHAJ85	HCHAJ85R	1068	blastx.2	hemolysin [Acanthamoeba polyphaga]	gb AAA58585.1	61%	206	57
HCHMM7 1	HCHMM71 R	1069	blastx.2	(AC003040) unknown protein [Arabidopsis thaliana]	gb AAC23757.1	58% 44%	2 249	244 329
HCLBH21	HCLBH21R	1071	blastx.2	cytochrome c oxidase subunit 1 [Pan troglodytes]	dbj BAA85270.1	91% 88%	3 415	416 600
HCOMA72	HCOMA72 R	1073	blastx.2	NuMA protein - human	pir S33413 S33413	100%	115	273
HCOMB04	HCOMB04 R	1074	blastx.2	prolylcarboxypeptidase [Homo sapiens]	gb AAA99891.1	98% 55%	77 702	718 782
HCOMD38	HCOMD38 R	1075	blastx.2	phospholipid hydroperoxide glutathione peroxidase [Homo sapiens]	emb CAA50793.1	100%	39	275
HCOMD61	HCOMD61	1076	blastx.2	(AF047470) malate	gb AAC03787.1	87%	1	216

	R				dehydrogenase precursor [Homo sapiens]		75%	240	287
HCOMF52	HCOMF52 R	1078	blastx.2		hypothetical protein 384D8_6 [Homo sapiens]	gb AAB03345.1	80%	14	655
HCOMG28	HCOMG28 R	1079	blastx.2		elongation factor 1 alpha [Oryctolagus cuniculus]	gb AAA18502.1	71% 100%	100 54	522 98
HCOMG40	HCOMG40 R	1080	blastx.2		ribosomal protein L15 [Rattus norvegicus]	emb CAA55026.1	76%	35	646
HCOMI30	HCOMI30R	1083	blastx.2		ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1]	gb AAB00807.1	85%	315	491
HCOMI37	HCOMI37R	1084	blastx.2		similar to 40S ribosomal protein; cDNA EST CEMSA13F comes from 1 1 gene; cDNA EST EMBL:M79582 comes from this gene; cDN	emb CAA86061.1	59% 66% 64%	304 89 518	540 301 568
HCOML11	HCOML11 R	1085	blastx.2		fused-ccdB [Escherichia coli]	emb CAA71575.1	90%	273	470
HCOMM5	HCOMM55 R	1087	blastx.2		The polymorphysm (RFLP) of this gene is associated with 1 1	dbj BAA03853.1	100%	298	176
HCOMO58	HCOMO58 R	1088	blastx.2		(AF042857) lung cancer antigen NY-LU-12 variant A [Homo	gb AAC05826.1	98%	4	282

HCOMW5 2	HCOMW52 RP00B	1089	blastx.2	sapiens] (AB032025) ubiquitin [Canis familiaris]	dbj BAA83996.1	99%	60	443
HCOMX77	HCOMX77 R	1090	blastx.2	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTE IN A1 1 (HNRNP CORE PROTEIN A1).	sp P09651 ROA1_H UMAN	65% 96% 100% 57% 53% 48% 34% 57% 62% 44% 45% 75% 50%	133 5 81 5 8 5 142 11 81 5 11 81 84	315 82 122 82 76 82 291 82 128 82 79 116 119
HCONC18	HCONC18 RP00B	1091	blastx.2	cathepsin D [Homo sapiens]	gb AAA51922.1	87% 91% 83% 71%	3 190 335 426	188 333 424 467
HCONK56	HCONK56 R	1093	blastx.2	ribosomal protein L18 [Homo sapiens]	gb AAA16329.1	100% 57%	104 567	616 665
HCONL49	HCONL49 R	1095	blastx.2	ribosomal protein S13 [Homo sapiens]	dbj BAA13528.1	98%	3	221
HCONO17	HCONO17 R	1099	blastx.2	(AC004240) match to Z43555 (NID:g572788) [Homo sapiens]	gb AAC04502.1	81% 71%	4 65	69 148
HCONO25	HCONO25 R	1100	blastx.2	5,10- methenyltetrahydrofolate synthetase [Homo]	gb AAC41945.1	77% 87% 100%	251 147 3	610 245 68

HCONP44	HCONP44R	1101	blastx.2	[sapiens] H ⁺ -transporting ATP synthase (EC 3.6.1.34) 58K chain - human	pir A33281 A33281	51%	481	579
HCONR31	HCONR31R	1104	blastx.2	eizin (AA 1-586) [Homo sapiens]	emb CAA35893.1	98%	3	281
HCONU03	HCONU03R	1105	blastx.2	glyceraldehyde 3-phosphate dehydrogenase (EC 1.2.1.12) [Homo sapiens]	gb AAA52496.1	92% 92% 53%	3 511 611	518 627 688
HCONW62	HCONW62R	1106	blastx.2	Human tetracycline transporter-like protein mRNA [Homo sapiens]	emb CAA92577.1	77% 85% 69% 36%	1 330 529 6	297 473 645 119
HCOOG32	HCOOG32R	1111	blastx.2	ornithine decarboxylase antizyme [Homo sapiens]	dbj BAA13497.1	97%	5	334
HCOOG37	HCOOG37R	1112	blastx.2	ribosomal protein S17 [Homo sapiens]	gb AAA60284.1	92%	78	482
HCOOI71	HCOOI71R	1114	blastx.2	calpactin I light chain [Bos taurus]	gb AAA30423.1	100%	64	354
HCOOI79	HCOOI79R	1115	blastx.2	beta-subunit [Bos taurus]	emb CAA29094.1	77% 50%	215 681	703 740
HCOOM18	HCOOM18R	1116	blastx.2	keratin 18 [Homo sapiens]	gb AAA59461.1	95% 100%	14 616	640 690
HCOOM73	HCOOM73R	1117	blastx.2	claudin-10 [Homo sapiens]	gb AAC79506.1	90%	26	694
HCOOQ46	HCOOQ46	1118	blastx.2	protein-tyrosine	emb CAA48338.1	100%	2	166

	R				phosphatase [Homo sapiens]					
HCOOT43	HCOOT43 R	1120	blastx.2		neutral protease alpha subunit [Homo sapiens]	gb AAA35646.1	100%	95	439	
HCOOT68	HCOOT68 R	1121	blastx.2		(AF019661) zeta proteasome chain; PSMA5 [Mus musculus]	gb AAC69149.1	99% 77%	171 473	470 652	
HCOOU56	HCOOU56 R	1122	blastx.2		(AF143815) ribosomal protein [Bos taurus]	gb AAD33912.1 AF143815_1	55% 62% 52%	30 233 698	515 406 748	
HCOOW72	HCOOW72 R	1123	blastx.2		keratin 18 [Homo sapiens]	gb AAA59461.1	78%	49	552	
HCOOX48	HCOOX48 R	1126	blastx.2		(AF095770) PTH-responsive osteosarcoma D1 protein [Homo sapiens]	gb AAD25980.1 AF095770_1	87% 83%	218 330	310 365	
HCOOY43	HCOOY43 R	1127	blastx.2		THIOREDOXIN PEROXIDASE 1 (THIOREDOXIN-DEPENDENT PEROXIDE 1 (NATURAL KILLER CELL ENHANCING FACTOR B) (NKEF-B).	sp P32119 TDX1_HUMAN	91%	22	426	
HCOPB03	HCOPB03R	1129	blastx.2		ribosomal protein L19 - rat	pir A56846 A56846	98% 62%	11 367	367 573	

HCOPC45	HCOPC45R	1130	blastx.2	homologue of yeast IPP isomerase [Homo sapiens]	emb CAA34890.1	96%	3	89
HCOPD67	HCOPD67R	1131	blastx.2	ubiquitin conjugating-protein [Oryctolagus cuniculus]	gb AAA31492.1	91%	104	541
HCOPE27	HCOPE27R	1132	blastx.2	serine protease homolog=NES1 [human, mammary epithelial cells, 76N, Peptide, 276 aa] [Homo sapiens]	gb AAB46780.1	99%	2	400
HCOPI09	HCOPI09R A	1134	blastx.2	fused; toxic gene [synthetic construct]	emb CAA67127.1	77%	62	310
HCOP034	HCOP034R	1136	blastx.2	(AF026246) HERV-E envelope glycoprotein [Homo sapiens]	gb AAC52076.1	65%	122	337
HCOP088	HCOP088R	1138	blastx.2	human homologue of rat ribosomal protein L9' [Homo sapiens]	dbj BAA03401.1	74%	4	507
HCOPV41	HCOPV41R	1139	blastx.2	MEMD protein [Homo sapiens]	emb CAA71256.1	97%	3	593
HCOPZ15	HCOPZ15R	1140	blastx.2	(AL031228) dJ1033B10.9 (Short-chain alcohol dehydrogenase family member (HKE6, RING2)) [Homo sapiens]	emb CAA20237.1	96% 83%	7 572	579 625

HCOQA38	HCOQA38 R	1141	blastx.2	sapiens] hBD-1 [Homo sapiens]	emb CAA63405.1	100%	68	271
HCOQB12	HCOQB12 R	1143	blastx.2	(AC005600) tuberin [Homo sapiens]	gb AAC34210.1	100% 84%	4 308	309 346
HCOQD29	HCOQD29 R	1147	blastx.2	S3 ribosomal protein [human, colon, Peptide, 243 aa] [Homo sapiens]	gb AAB19349.1	93% 55% 60%	16 552 632	588 707 730
HCOQD38	HCOQD38 R	1148	blastx.2	HMG1 protein (AA 1 - 215) [Bos taurus]	emb CAA31284.1	95%	112	636
HCOQD49	HCOQD49 R	1149	blastx.2	H+-transporting ATP synthase (EC 3.6.1.34) gamma chain precursor - bovine	pir A32019 PWBOG	89% 65%	35 513	532 692
HCOQG37	HCOQG37 R	1151	blastx.2	1-8D [Homo sapiens]	emb CAA40625.1	99% 100%	51 386	386 409
HCOQH46	HCOQH46 R	1153	blastx.2	mucin MUC5B [Homo sapiens]	gb AAC51343.1	100% 64%	95 324	343 365
HCOQJ06	HCOQJ06R	1156	blastx.2	37kD Laminin receptor precursor /p40 ribosomal associated protein [Gallus gallus]	emb CAA64147.1	85% 58%	26 352	361 474
HCOQJ07	HCOQJ07R	1157	blastx.2	laminin-binding protein [Homo sapiens]	gb AAA36161.1	88%	6	656
HCOQJ79	HCOQJ79R	1159	blastx.2	elongation factor 1 alpha [Oryctolagus cuniculus]	gb AAA18502.1	83%	1	471
HCOQK86	HCOQK86 R	1160	blastx.2	(AF038129) polyubiquitin [Ovis]	gb AAB92373.1	94% 94%	4 4	456 456

HCOQL87	HCOQL87 R	1161	blastx.2	aries]			93%	28	456
				glutathione S- transferase-pi [Homo sapiens]	gb AAA56823.1		97%	4	255
HCOQM87	HCOQM87 R	1162	blastx.2	DRPLA protein [Mus musculus]	dbj BAA13450.1		56%	440	487
HCOQO79	HCOQO79 R	1163	blastx.2	TIMP [Homo sapiens]	emb CAA00898.1		30%	440	556
HCOQP32	HCOQP32R	1164	blastx.2	elongation factor 1- alpha [Homo sapiens]	gb AAA52367.1		30%	440	556
HCOQS11	HCOQS11R	1165	blastx.2	acidic ribosomal phosphoprotein (P2) [Homo sapiens]	gb AAA36472.1		56%	24	521
				protein translocation complex beta subunit [Canis familiaris]	gb AAA19639.1		41%	328	630
HCOQU92	HCOQU92 R	1167	blastx.2	B4-2 protein [Homo sapiens]	gb AAA85576.1		52%	3	278
HCOQV27	HCOQV27 R	1168	blastx.2	catechol O- methyltransferase [Homo sapiens]	emb CAA81263.1		47%	17	307
HCOQX38	HCOQX38 R	1169	blastx.2	(AB000910) ribosomal protein [Sus scrofa]	dbj BAA19210.1		99%	2	574
				MHC class II HLA-	gb AAA59782.1		61%	561	608
HCOQY33	HCOQY33 R	1170	blastx.2				95%	15	149
HCOQZ86	HCOQZ86	1173	blastx.2				64%	151	381
							78%	102	398
							100%	91	270
							100%	272	301
							96%	3	239
							96%	32	421
							91%	421	489
							80%	495	539
							100%	1	30
							96%	49	321
							92%	106	357

	R			DR-beta-1 [Homo sapiens]		77%	351	470
HCORB20	HCORB20 R	1175	blastx.2	(AB012122) TIP49 [Homo sapiens]	dbj BAA28169.1	98%	68	292
HCORB66	HCORB66 R	1177	blastx.2	ribosomal protein L28 [Homo sapiens]	gb AAA85657.1	94%	75	482
HCORI18	HCORI18R	1178	blastx.2	hnRNP B1 protein [Homo sapiens]	dbj BAA06031.1	100%	120	317
						100%	2	124
						56%	126	305
						49%	123	305
HCORI25	HCORI25R	1179	blastx.2	pm5 protein [Homo sapiens]	emb CAA40655.1	50%	129	305
						44%	120	317
						43%	132	317
						39%	2	124
HCQCR82	HCQCR82 R	1180	blastx.2	NADH dehydrogenase subunit 3 [Homo sapiens]	dbj BAA77672.1	91% 90%	3 247	245 276
HCRME42	HCRME42 R	1181	blastx.2	IGF binding protein-2 [Sus scrofa]	gb AAC48728.1	87%	1	369
						59%	297	416
HDABR53	HDABR53 R	1182	blastx.2	ribosomal protein L23a [Homo sapiens]	gb AAA03341.1	47%	332	427
						97%	38	463
HDTAQ74	HDTAQ74 R	1185	blastx.2	(AF112208) 13kDa differentiation-associated protein [Homo sapiens]	gb AAF17196.1 AF112208_1	61%	115	408
						90%	38	136
						53%	326	409
HDTBP08	HDTBP08R	1186	blastx.2	UbcH5C [Homo sapiens]	gb AAA91461.1	100%	273	293
						97%	255	470

HDTDB88	HDTDB88 R	1188	blastx.2	cytochrome c oxidase subunit 1 [Pan troglodytes]	dbj BAA85270.1	89% 88%	27 259	275 441
HE8QX44	HE8QX44R	1190	blastx.2	(AF010472) alpha- amidating monooxygenase [Homo sapiens]	gb AAD01439.1	93% 95% 80%	49 272 475	288 475 549
HE9QU94	HE9QU94R	1191	blastx.2	alligator Wilm's tumour protein [Alligator mississippiensis]	emb CAA59735.1	100%	3	170
HEAHF02	HEAHF02R	1192	blastx.2	(AC004044) predicted protein of unknown function [Arabidopsis thaliana]	gb AAD15346.1	37%	62	376
HEEAY40	HEEAY40R	1193	blastx.2	hypothetical protein 2 (rRNA external transcribed spacer) - 1	pir S12206 S12206	100%	3	128
HEGAF68	HEGAF68R	1194	blastx.2	URF 3 (NADH dehydrogenase subunit) [Homo sapiens]	emb CAA24033.1	89% 89%	- 3 178	179 321
HFABK01	HFABK01R	1196	blastx.2	NADH dehydrogenase subunit 2 [Homo sapiens]	dbj BAA07291.1	80% 69%	2 186	190 284
HFIBG63	HFIBG63R	1198	blastx.2	cytokine SDF-1-beta [Homo sapiens]	gb AA97434.1	96%	152	406
HFIB15	HFIB15R	1199	blastx.2	cytochrome oxidase subunit II [Homo sapiens]	gb AA20843.1	93%	2	517
HFIXK57	HFIXK57R	1200	blastx.2	URF 3 (NADH dehydrogenase subunit)	emb CAA24033.1	90%	5	325

HFIZQ64	HFIZQ64R	1201	blastx.2	[Homo sapiens] (AK001601) unnamed protein product [Homo sapiens]	dbj BAA91782.1	100%	48	137
HFKKK36	HFKKK36 R	1202	blastx.2	neutral calponin [Homo sapiens]	dbj BAA12090.1	96%	3	86
HFPEC93	HFPEC93R	1203	blastx.2	URF 2 (NADH dehydrogenase subunit) [Homo sapiens]	emb CAA24027.1	87% 90%	66 1	527 66
HFPIX37	HFPIX37R	1204	blastx.2	(AL137696) hypothetical protein [Homo sapiens]	emb CAB70878.1	51% 41%	4 1	240 258
HFTDK36	HFTDK36R	1205	blastx.2	folate-binding protein precursor [Homo sapiens]	gb AAA35822.1	100% 38%	90 341	290 514
HFVIB28	HFVIB28R	1206	blastx.2	fused-ccdB [Escherichia coli]	emb CAA71575.1	70%	26	175
HFXGR60	HFXGR60R	1207	blastx.2	(AF034746) LNXp70 [Mus musculus]	gb AAC40076.1	56%	347	57
HHAUD07	HHAUD07 R	1208	blastx.2	GTP-binding regulatory protein Gs alpha chain isoform - 1	pir JH0813 JH0813	75%	337	459
HHBFO21	HHBFO21R	1209	blastx.2	URF 3 (NADH dehydrogenase subunit) [Homo sapiens]	emb CAA24033.1	83% 82% 64%	3 248 205	236 328 246
HHEVG50	HHEVG50 R	1210	blastx.2	CAG-isl 7 [Homo sapiens]	gb AAC16021.1	93%	13	474
HHFGQ65	HHFGQ65 RA	1211	blastx.2	(AJ249731) putative G8.1 protein [Homo]	emb CAB56506.1	81% 77%	107 25	319 129

HHSFG15	HHSFG15R	1213	blastx.2	sapiens] (AF014888) NADH dehydrogenase subunit 2 [Homo sapiens]	gb AAC25447.1	78%	3	743
HHSGP15	HHSGP15R	1214	blastx.2	cytochrome oxidase subunit III [Talpa europaea]	emb CAB71165.1	74% 62%	2 517	529 717
HHSQG17	HHSQG17 R	1215	blastx.2	cytochrome b [Homo sapiens]	gb AAA19775.1	89%	79	435
HKBAD05	HKBAD05 R	1216	blastx.2	(AB015335) HRIHFB2072 [Homo sapiens]	dbj BAA88116.1	84% 100%	61 324	351 356
HKZAE07	HKZAE07R	1218	blastx.2	Na ⁺ , K ⁺ -ATPase beta- subunit precursor [Sus scrofa]	gb AAA31002.1	100%	1	138
HKZAI14	HKZAI14R	1220	blastx.2	keratin 18 [Homo sapiens]	gb AAA59461.1	100%	3	368
HKZAI68	HKZAI68R A	1221	blastx.2	antigen [Homo sapiens]	gb AAA02999.1	100%	2	79
HKZAQ39	HKZAQ39 R	1222	blastx.2	ubiquitin-conjugating enzyme UbcH7 [Homo sapiens]	emb CAA63538.1	100%	19	480
HKZAR58	HKZAR58 R	1223	blastx.2	(AC005545) AP-3 complex delta subunit, partial CDS [Homo 1]	gb AAC34214.1	98%	3	266
HKZAS59	HKZAS59R	1224	blastx.2	ATP synthase beta subunit precursor [Homo sapiens]	gb AAA51809.1	100%	1	462
HKZAS64	HKZAS64R	1225	blastx.2	nephroptin [Homo]	gb AAA17675.1	98%	1	276

HKZAS84	HKZAS84R	1226	blastx.2	sapiens] calpain II regulatory subunit (EC 3.4.22.17) [Bos taurus]	gb AAA30422.1	100%	2	103
HKZAV69	HKZAV69 R	1227	blastx.2	ribosomal protein S17 [Homo sapiens]	gb AAA60284.1	100%	8	412
HKZAV72	HKZAV72 R	1228	blastx.2	fibronectin precursor [Homo sapiens]	emb CAA26536.1	100%	2	163
HKZBB22	HKZBB22R	1230	blastx.2	(AB015610) ribosomal protein S4X [Chlorocebus aethiops]	dbj BAA36501.1	100%	8	520
HKZBS89	HKZBS89R	1231	blastx.2	ferritin heavy subunit [Homo sapiens]	gb AAA35830.1	100%	1	381
HLDQQ80	HLDQQ80 R	1232	blastx.2	ATPase subunit 6 [Papio hamadryas]	emb CAA76999.1	74% 54%	2 153	142 257
HLDXE19	HLDXE19R	1233	blastx.2	neuron-restrictive silencer factor [Homo sapiens]	gb AAC50115.1	80%	17	187
HLICD55	HLICD55R	1234	blastx.2	glutamine:fructose-6- phosphate amidotransferase [Homo sapiens]	gb AAA58502.1	96%	56	148
HLJBI37	HLJBI37R	1236	blastx.2	H(+)-transporting ATP synthase [Bos taurus]	emb CAA45865.1	100% 65% 80% 60% 88%	165 329 83 481 450	335 610 187 555 476
HLTHA47	HLTHA47R	1237	blastx.2	100 kDa protein [Rattus norvegicus]	emb CAA45756.1	82% 88%	187 380	393 406

HLTJA50	HLTJA50R	1238	blastx.2	(AK002071) unnamed protein product [Homo sapiens]	dbj BAA92068.1	63%	334	723
HLydi57	HLydi57R	1241	blastx.2	URF 1 (NADH dehydrogenase subunit) [Homo sapiens]	emb CAA24026.1	90%	2	565
HMCFO19	HMCFO19R	1242	blastx.2	hypothetical 18K protein - goldfish mitochondrion	pir JC1348 JC1348	46%	104	361
HMCIZ44	HMCIZ44R	1243	blastx.2	URF 2 (NADH dehydrogenase subunit) [Homo sapiens]	emb CAA24027.1	86% 74% 40%	1 377 207	342 517 389
HMCJE25	HMCJE25R	1244	blastx.2	cytochrome oxidase subunit I [Hylobates lar]	emb CAA67630.1	82% 77%	3 298	314 351
HMSPB25	HMSPB25R	1245	blastx.2	alcohol dehydrogenase [Homo sapiens]	gb AAA51596.1	75%	315	172
HMVBB04	HMVBB04R	1246	blastx.2	cytochrome-c oxidase (EC 1.9.3.1) chain I - western lowland 1	pir C59153 C59153	86%	-73	201
HNAAE01	HNAAE01R	1247	blastx.2	(AP000616) similar to RING-H2 finger protein RHA1a (AF078683) [Oryza sativa]	dbj BAA85438.1	67% 67% 100% 100% 100% 100% 100% 100%	95 96 90 89 92 91 93 94 91	196 197 155 154 157 156 158 159 153
HNBUIY37	HNBUIY37	1249	blastx.2	smooth muscle myosin	gb AAB28951.1	95%	77	289

	R				heavy chain isoform SM1 [human, umbilical 1				
HNBVL57	HNBVL57 R	1250	blastx.2		growth-arrest-specific protein 2 [Homo sapiens]	gb AAC52058.1	74% 55%	242 70	514 384
HNHBC18	HNHBC18 R	1251	blastx.2		OS9 [Homo sapiens]	gb AAC39523.1	100% 41% 46% 35%	1 245 315 244	243 403 404 435
HNJFE85	HNJFE85R	1252	blastx.2		(AL031670) dJ681N20.2 (similar to FTLL1(ferritin, light 1 (AF044957) NADH:ubiquinone oxidoreductase B15 subunit [Homo sapiens]	emb CAB43181.1	97%	224	451
HNKCO29	HNKCO29 R	1253	blastx.2		acidic ribosomal phosphoprotein (P1) [Homo sapiens]	gb AAD05421.1	95%	52	390
HNOAA22	HNOAA22 R	1254	blastx.2		actin 2 protein [Strongylocentrotus purpuratus]	gb AAA36471.1	91%	114	422
HNOAB88	HNOAB88 R	1257	blastx.2		unnamed protein product [unidentified]	gb AAA30032.1	83% 81%	3 509	491 541
HNOAC15	HNOAC15 R	1259	blastx.2		ribosomal protein L21 [Homo sapiens]	emb CAB42187.1	93%	1	87
HNOAE50	HNOAE50 R	1260	blastx.2		ribosomal protein L26 [Homo sapiens]	emb CAA61582.1	98%	98	577
HNOAE65	HNOAE65 R	1261	blastx.2			emb CAA49189.1	100%	101	535

HNOAF22	HNOAF22	1262	blastx.2	ribosomal protein L21 [Homo sapiens]	emb CAA61582.1	100%	76	555
HNOAG34	HNOAG34 R	1264	blastx.2	collagen alpha 1(I) chain - bovine (fragments)	pir A91193 CGBO1S	64%	54	239
						72%	1	108
						75%	221	319
						37%	3	239
						67%	221	313
						39%	21	239
						44%	54	236
						36%	15	236
						37%	15	236
						44%	72	239
						39%	21	239
						42%	12	236
						38%	3	236
						38%	15	239
						45%	84	236
						48%	99	239
						35%	15	236
						41%	54	239
						35%	6	239
						36%	3	239
						62%	233	319
						42%	69	239
						47%	93	236
						36%	15	239
						38%	3	200
						45%	93	236
						35%	15	239
						38%	54	239

							44%	93	239
							41%	6	236
							37%	3	239
							41%	69	236
							35%	6	236
							34%	15	239
							44%	84	239
							48%	218	322
							35%	6	239
							36%	21	236
							33%	15	239
							36%	3	239
							32%	3	239
							48%	218	319
							36%	54	239
							52%	227	322
							35%	15	236
							50%	233	328
							54%	233	328
							51%	227	322
							46%	111	239
							47%	218	319
							33%	21	236
							53%	233	322
							57%	233	316
							42%	114	239
							57%	233	316
							53%	233	316
							50%	227	328
							51%	227	328

							38%	69	239
							33%	3	236
							53%	233	316
							59%	1	96
							36%	93	239
							45%	233	358
							51%	227	319
							50%	227	322
							45%	221	319
							47%	218	319
							51%	233	319
							45%	212	316
							46%	227	316
							46%	221	316
							50%	233	322
							44%	221	322
							44%	230	328
							45%	227	328
							44%	1	108
							38%	93	239
							45%	227	322
							50%	227	316
							50%	233	316
							50%	227	316
							50%	230	319
							43%	227	319
							46%	233	322
							46%	221	316
							48%	233	319
							46%	227	316

50%	233	322
51%	227	316
50%	233	316
41%	227	316
50%	233	316
46%	233	322
46%	227	322
44%	242	328
41%	212	319
46%	227	316
46%	233	322
45%	1	105
44%	230	322
39%	1	123
42%	209	322
63%	260	316
45%	227	319
44%	1	105
41%	1	108
43%	227	316
42%	1	114
42%	1	105
44%	1	105
46%	233	316
39%	221	316
45%	1	93
45%	227	322
41%	1	93
38%	1	108
46%	233	322

								43%	233	322
								42%	221	316
								41%	1	108
								39%	1	114
								38%	1	108
								40%	1	108
								40%	212	316
								41%	221	322
								36%	1	108
								38%	1	108
								43%	233	328
								38%	227	316
								43%	227	316
								43%	233	322
								40%	221	316
								37%	1	105
								38%	1	108
								43%	227	316
								38%	1	93
								47%	227	316
								41%	1	93
								40%	221	316
								38%	227	316
								38%	227	316
								41%	1	93
								38%	1	93
								36%	1	108
								38%	218	316
								63%	260	316
								37%	1	105

							108
						1	108
						1	108
						1	108
						227	316
						227	316
						221	316
						1	108
						321	362
						1	105
						1	108
						1	108
						1	93
						1	123
						212	322
						1	66
						1	105
						1	93
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						221	328
						1	105
						212	316
						233	316
						1	93
						1	105
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						1	108
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						1	108

								41%	1	93
								38%	1	108
								33%	1	108
								31%	1	114
								37%	1	105
								33%	1	108
								40%	233	322
								35%	1	93
								31%	1	105
								34%	1	105
								37%	230	316
								40%	227	316
								38%	1	93
								33%	1	108
								37%	1	96
								39%	218	316
								31%	1	123
								38%	233	316
								36%	1	105
								38%	1	108
								39%	233	316
								40%	233	322
								38%	1	93
								36%	1	108
								37%	1	105
								36%	233	322
								32%	1	93
								33%	1	108
								30%	1	108
								35%	1	93

33%	1	108
30%	1	108
38%	218	316
35%	227	316
38%	1	108
31%	1	105
35%	1	93
34%	233	319
36%	233	322
39%	221	322
35%	233	316
36%	1	66
35%	233	316
34%	233	319
38%	238	71
34%	250	20
45%	357	226
38%	238	86
44%	357	214
48%	321	223
39%	235	77
50%	318	223
48%	318	226
37%	238	50
35%	238	71
39%	199	71
47%	238	86
46%	321	226
47%	318	214
45%	318	214

							86
							80
							220
							226
							226
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							214
							68
							104
							98
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							214
							214

[illegible]

34%	235	89
43%	318	217
40%	318	217
41%	318	220
35%	330	214
41%	238	71
47%	65	3
40%	330	226
41%	318	226
37%	318	223
37%	318	214
44%	318	226
39%	321	226
38%	318	226
43%	321	226
40%	321	226
41%	312	226
40%	315	226
39%	315	223
44%	321	214
56%	318	271
50%	321	226
40%	321	220
38%	321	223
34%	357	226
40%	315	226
38%	318	226
38%	318	226
52%	318	271
35%	318	226

HNOAH67	HNOAH67 R	1266	blastx.2	elongation factor 1 alpha [Oryctolagus cuniculus]	gb AAA18502.1	38% 33%	56 65	3 3
HNOAJ67	HNOAJ67R	1267	blastx.2	(AB000911) ribosomal protein [Sus scrofa]	dbj BAA19211.1	100%	69	524
HNOAL51	HNOAL51 R	1270	blastx.2	(AD001528) spermidine aminopropyltransferase [Homo sapiens]	gb AAB61308.1	72% 75%	70 3	255 74
HNOAO71	HNOAO71 R	1273	blastx.2	MAP kinase kinase [Homo sapiens]	gb AAA36318.1	98%	62	283
HNOAP21	HNOAP21 R	1274	blastx.2	Q1Z 7F5 [Homo sapiens]	gb AAA36021.1	91%	20	667
HNOAQ24	HNOAQ24 R	1275	blastx.2	epoxide hydrolase [Homo sapiens]	gb AAA52390.1	89%	2	571
HNOAQ47	HNOAQ47 R	1276	blastx.2	TAXREB107 [Homo sapiens]	dbj BAA04491.1	99%	1	618
HNOAR85	HNOAR85 R	1278	blastx.2	(AF161378) HSPC260 [Homo sapiens]	gb AAF28938.1 AF1 61378 1	88% 92%	287 99	562 290
HNOAS07	HNOAS07 R	1279	blastx.2	scar protein [Homo sapiens]	gb AAA36597.1	97% 97%	96 1	521 108
HNOAS36	HNOAS36 R	1280	blastx.2	proteoglycan core protein [Homo sapiens]	gb AAB00774.1	100%	3	254
HNOAS92	HNOAS92 R	1281	blastx.2	glutathione transferase M1 [Homo sapiens]	gb AAA59203.1	100%	2	385
HNOAT76	HNOAT76 R	1283	blastx.2	(AB016193) transcription factor	dbj BAA36616.1	100%	2	187

HNOAV91	HNOAV91 R	1284	blastx.2	[Homo sapiens] ribosomal protein L28	gb AAA85657.1	99%	29	439
HNOBE83	HNOBE83 R	1286	blastx.2	[Homo sapiens] translation initiation factor eIF3 p40 subunit	gb AAD03465.1	100% 60% 79%	2 525 694	598 692 765
HNOBV55	HNOBV55 RA	1287	blastx.2	[Homo sapiens] ribosomal protein L12	gb AAA36157.1	100% 74%	171 65	506 217
HNOCE63	HNOCE63 R	1288	blastx.2	[Homo sapiens] (AF083217) WD repeat protein WDR3 [Homo sapiens]	gb AAD45865.1 AF0 83217_1	68% 30% 45%	2 442 393	388 819 557
HNOCL43	HNOCL43 R	1289	blastx.2	alpha-1 type III collagen [Homo sapiens]	gb AAA52002.1	98%	2	193
HNOCN02	HNOCN02 R	1290	blastx.2	TARBP-b gene product [Homo sapiens]	gb AAA91344.1	91%	7	666
HNOCN10	HNOCN10 R	1291	blastx.2	(AF043254) heat shock protein 75 [Homo sapiens]	gb AAC02679.1	90% 40% 100%	4 488 435	423 622 464
HNOCR44	HNOCR44 R	1292	blastx.2	ribosomal protein L7a large subunit [Homo sapiens]	gb AAA60282.1	80%	3	440
HNOCU03	HNOCU03 R	1293	blastx.2	translational elongation factor-1 alpha [Danio rerio]	emb CAA54771.1	74%	40	360
HNODG11	HNODG11 R	1295	blastx.2	tumor protein (AA 1 - 172) [Homo sapiens]	emb CAA34200.1	71% 70% 66% 85%	93 262 482 552	362 498 580 611

HNOJA93	HNOJA93R	1298	blastx.2	general transcription factor [Homo sapiens]	emb CAA37375.1	100%	1	453
HNOJB10	HNOJB10R	1299	blastx.2	(AF110731) antioxidant enzyme B166 [Homo sapiens]	gb AAF03750.1 AF110731.1	98% 53% 54%	11 384 418	376 521 480
HNOJB57	HNOJB57R	1300	blastx.2	midline [Homo sapiens]	dbj BAA01457.1	74%	92	520
HNOJH48	HNOJH48R	1304	blastx.2	(AF077054) unr protein [Homo sapiens]	gb AAD27787.1 AF077054.1	100%	2	283
HNOJH52	HNOJH52R	1305	blastx.2	S-adenosylhomocysteine hydrolase [Homo sapiens]	gb AAA51681.1	100%	6	179
HNOJI82	HNOJI82R	1306	blastx.2	ubiquitin [synthetic construct]	gb AAA57047.1	94%	22	489
HNOJI85	HNOJI85R	1307	blastx.2	(AF035718) mesoderm-specific basic-helix-loop-helix protein; Pod-1 [Homo sapiens]	gb AAC62514.1	86%	13	513
HNOJJ20	HNOJJ20R	1308	blastx.2	ribosomal protein L23a [Homo sapiens]	gb AAA03341.1	98%	1	261
HNOJJ26	HNOJJ26R	1309	blastx.2	plasma gelsolin [Homo sapiens]	emb CAA28000.1	73%	2	568
HNOJK66	HNOJK66R	1310	blastx.2	von Willebrand factor prepropeptide [Homo sapiens]	gb AAB59512.1	90% 100% 26% 25% 25% 26%	1 408 16 13 307 91	459 491 396 324 402 405

HNOJM64	HNOJM64	1312	blastx.2	alpha-tubulin III [Cricetulus griseus]	gb AAA37026.1	69%	218	256
	R					27%	319	399
						38%	343	402
						32%	16	171
						97%	3	428
HNOJO55	HNOJO55R	1313	blastx.2	Protein sequence and annotation available soon via Swiss-Prot; 1 [Homo sapiens]	emb CAA62188.1	93%	423	277
						100%	134	9
						66%	134	9
						53%	423	277
						40%	423	268
						48%	131	9
						36%	143	3
						37%	423	289
						39%	402	286
						44%	116	9
						30%	423	280
						33%	128	12
						28%	128	12
						23%	128	3
						30%	128	12
						42%	408	310
						32%	423	289
						35%	426	265
						27%	137	3
						37%	396	280
						30%	408	280
						22%	146	12
						35%	119	9
						41%	357	280

HNOJP42	HNOJP42R	1314	blastx.2	envelope protein [Homo sapiens]	gb AAA88027.1	28%	414	280
						34%	116	12
						37%	381	280
						25%	423	280
						23%	426	310
						27%	116	9
						35%	402	286
						35%	426	298
						28%	423	277
						28%	116	12
						39%	158	93
						31%	420	310
						35%	140	99
						25%	128	12
						43%	117	70
						71%	6	302
HNOJQ22	HNOJQ22R	1315	blastx.2	(AJ224875) glucosyltransferase [Homo sapiens]	emb CAA12176.1	100%	217	510
						100%	1	219
HNOKA20	HNOKA20 R	1316	blastx.2	signal recognition particle subunit 14 [Homo sapiens]	emb CAA51838.1	97%	38	259
HNOKG34	HNOKG34 R	1318	blastx.2	hnRNPCore protein A1 [Homo sapiens]	emb CAA56072.1	100%	43	510
						31%	52	324
HNOKI89	HNOKI89R	1323	blastx.2	(AF009368) Luman [Homo sapiens]	gb AAB69652.1	100%	2	370
HNOKT24	HNOKT24 R	1326	blastx.2	ribosomal protein L6 [Homo sapiens]	emb CAA49188.1	89%	74	457
						68%	3	191
HNOKU52	HNOKU52	1327	blastx.2	ribosomal protein L29	gb AAC50499.1	98%	33	509

HNOKV82	R	1328	blastx.2	[Homo sapiens] (AF081484) alpha-tubulin isoform 1 [Homo sapiens]	gb AAC31959.1	100%	3	488
HNORA56	R	1330	blastx.2	MHC class I A [Pan troglodytes]	gb AAA88855.1	93% 91% 96%	2 348 289	289 494 363
HNORB68	R	1331	blastx.2	high mobility group protein 17 [Homo sapiens]	gb AA52678.1	95%	4	186
HNORC14	R	1332	blastx.2	hevin [Homo sapiens]	emb CAA57650.1	90%	2	496
HNORD11	R	1333	blastx.2	ribosomal protein L5 [Rattus norvegicus]	gb AAA42074.1	93% 91%	179 7	394 183
HNORE65	R	1334	blastx.2	ORF [Pan troglodytes]	dbj BAA01980.1	83%	77	355
HNORF03		1335	blastx.2	(AL031228) dJ1033B10.2 (WD40 protein BING4 (similar to S. 1 sapiens)	emb CAA20229.1	89% 83% 90%	70 529 357	357 582 386
HNORF04		1336	blastx.2	(AF196481) RING finger protein; FXY2 [Homo sapiens]	gb AAF07341.1 AF196481_1	91%	4	144
HNORF05		1337	blastx.2	human homologue of rat ribosomal protein L9' [Homo sapiens]	dbj BAA03401.1	98% 98%	2 321	319 485
HNORF13		1338	blastx.2	TIMP [Homo sapiens]	emb CAA00898.1	74%	31	615
HNORH03	R	1339	blastx.2	(AF110731) antioxidant enzyme	gb AAF03750.1 AF110731_1	95%	3	641

HNORH05	HNORH05 R	1340	blastx.2	B166 [Homo sapiens] ubiquitin conjugating- protein [Oryctolagus cuniculus]	gb AAA31492.1	100%	43	498
HNORJ08	HNORJ08R	1342	blastx.2	ATPase [Mus musculus]	gb AAA88243.1	90% 90% 38%	3 308 514	350 496 606
HOCMA02	HOCMA02 RA	1344	blastx.2	(AF016365) hexokinase I [Homo sapiens]	gb AAC15862.1	100% 65% 86% 50%	3 3 490 490	497 497 558 555
HOCMC08	HOCMC08 R	1347	blastx.2	elongation factor 1 alpha [Oryctolagus cuniculus]	gb AAA18502.1	89%	19	423
HOCMF27	HOCMF27 R	1349	blastx.2	sorbitol dehydrogenase [Homo sapiens]	gb AAA66064.1	100%	3	395
HOCMG37	HOCMG37 R	1352	blastx.2	chaperonin (HSP60) [Homo sapiens]	gb AAA36022.1	98% 36%	4 326	351 424
HOCMI62	HOCMI62R	1353	blastx.2	S19 ribosomal protein [Homo sapiens]	gb AAA89070.1	67%	64	384
HOCMJ47	HOCMJ47R	1354	blastx.2	ribosomal protein L18a [Homo sapiens]	gb AAC18781.1	98% 100%	4 413	378 439
HOCMK20	HOCMK20 R	1355	blastx.2	stathmin [Xenopus laevis]	emb CAA50562.1	77% 64%	80 363	379 500
HOCML06	HOCML06 R	1356	blastx.2	glyceraldehyde 3- phosphate dehydrogenase (EC 1.2.1.12) [Homo sapiens]	gb AAA52496.1	97%	123	707

HOCML66	HOCML66 R	1357	blastx.2	(AK000779) unnamed protein product [Homo sapiens]	dbj BAA91374.1	85% 76%	2 217	211 330
HOCMM5 2	HOCMM52 R	1358	blastx.2	glutathione transferase T1 [Homo sapiens]	emb CAA55935.1	98% 100%	133 24	594 137
HOCMS75	HOCMS75 R	1360	blastx.2	plakoglobin [Homo sapiens]	emb CAA92522.1	88%	6	500
HOCMS87	HOCMS87 R	1361	blastx.2	insulin-like growth factor binding protein 5 [Homo sapiens]	gb AA53505.1	70%	151	615
HOCMY53	HOCMY53 R	1363	blastx.2	(AF028832) Hsp89- alpha-delta-N [Homo sapiens]	gb AAC25497.1	97% 100% 43%	97 309 45	312 416 113
HOCMY61	HOCMY61 R	1364	blastx.2	ribosomal protein S15a [Rattus norvegicus]	emb CAA54918.1	99%	80	466
HOCMY79	HOCMY79 R	1365	blastx.2	fau [Homo sapiens]	emb CAA46716.1	100% 100%	317 115	511 315
HOCOC38	HOCOC38 R	1366	blastx.2	HYPOTHETICAL PROTEIN (FRAGMENT).	sp Q16465 YZA1_H UMAN	100%	388	23
HOCOC94	HOCOC94 R	1368	blastx.2	protein phosphatase 2A (AA 1 - 309) [Oryctolagus cuniculus]	emb CAA68732.1	98% 84% 66%	3 490 566	485 567 628
HOCOF35	HOCOF35R	1369	blastx.2	(AF059486) putative actin-binding protein DOC6 [Mus musculus]	gb AAC31808.1	51% 81% 47% 29% 28% 31%	224 100 495 31 511 139	706 279 647 273 711 282

HOCOF50	HOCOF50R	1370	blastx.2	FKBP52; 52 kD FK506 binding protein' [Homo sapiens]	gb AAA36111.1	72%	2	460
						46%	38	532
						55%	396	632
						43%	472	561
HOCOO62	HOCOO62 R	1371	blastx.2	Ro ribonucleoprotein autoantigen (Ro/SS-A) precursor [Homo sapiens]	gb AAA36582.1	77%	42	596
HOCOP52	HOCOP52R	1372	blastx.2	spliceosomal protein [Homo sapiens]	gb AAA60300.1	67%	2	631
						34%	68	301
						39%	388	621
						30%	441	626
						42%	522	620
HOCOQ13	HOCOQ13 R	1373	blastx.2	probable transmembrane protein TMC - human	pir S70029 S70029	94%	94	474
						75%	482	541
HOCOT70	HOCOT70 R	1375	blastx.2	ribosomal protein S17 [Homo sapiens]	gb AAA60284.1	97%	8	412
HOCPP69	HOCPP69R	1377	blastx.2	(AJ001701) deoxyhypusine synthase [Homo sapiens]	emb CAA04940.1	96%	1	351
						72%	347	412
						50%	396	455
HOCPH40	HOCPH40R	1380	blastx.2	3-oxoacyl-CoA thiolase propeptide (424 AA) [Homo sapiens]	emb CAA31412.1	100%	2	217
HOCPH44	HOCPH44R	1381	blastx.2	antiseretory factor-1 [Homo sapiens]	gb AAB54057.1	96%	3	275
						48%	286	408
HOCPI53	HOCPI53R	1383	blastx.2	collagen (VI) alpha-1 chain [Homo sapiens]	emb CAA67576.1	76%	41	322
						56%	225	365
						100%	4	39

HOCPM39	HOCPM39 R	1385	blastx.2	pinin [Bos taurus]	gb AAB48302.1	86%	23	136
HOCPP65	HOCPP65R	1386	blastx.2	histone H2A.F [Gallus gallus]	emb CAA32094.1	85% 53%	63 350	314 445
HOCPP80	HOCPP80R	1387	blastx.2	isoleucyl-tRNA synthetase [Homo sapiens]	gb AAA80153.1	88%	3	563
HOCQP59	HOCQP59R	1389	blastx.2	(AF006012) dishevelled 2 [Homo sapiens]	gb AAB65243.1	84% 100%	38 5	394 52
HOCQP66	HOCQP66R	1390	blastx.2	clathrin-associated protein 17 [Rattus norvegicus]	gb AAA40742.1	100%	2	427
HOCQP75	HOCQP75R	1391	blastx.2	TIMP [Homo sapiens]	emb CAA00898.1	86%	26	646
HOCPR01	HOCPR01R	1392	blastx.2	alpha subunit (aa 1- 394) [Bos taurus]	emb CAA27137.1	100% 91%	39 2	536 37
HOCPR29	HOCPR29R	1393	blastx.2	translation initiation factor [Homo sapiens]	emb CAA56074.1	96% 48% 40%	1 603 575	579 776 679
HOCPR53	HOCPR53R	1395	blastx.2	P311 HUM [Homo sapiens]	gb AAA74903.1	77%	86	268
HOCPR77	HOCPR77R	1397	blastx.2	similar to emb-5 protein of C.elegans. [Homo sapiens]	dbj BAA11479.1	92%	1	249
HOCPS35	HOCPS35R	1399	blastx.2	(AB017018) JKTBP2 [Homo sapiens]	dbj BAA75239.1	100%	3	203
HOCPU03	HOCPU03R	1400	blastx.2	dihydropyridine- sensitive L-type calcium channel alpha-2 subunit	gb AAA41088.1	65% 54%	7 441	456 512

HOCPU30	HOCPU30R	1401	blastx.2	[Rattus norvegicus] KDEL receptor [Homo sapiens]	emb CAA39371.1	66% 69% 61%	342 139 242	518 267 334
HOCPU68	HOCPU68R	1402	blastx.2	procathepsin B [Homo sapiens]	gb AAA52129.1	98%	3	269
HOCPU29	HOCPU29R	1403	blastx.2	thrombin inhibitor [Homo sapiens]	emb CAA80373.1	58%	243	593
HOCPU67	HOCPU67R	1404	blastx.2	serine/threonine-protein kinase PRP4m [Mus musculus]	gb AAB03269.1	88% 87%	58 345	327 518
HOCPU72	HOCPU72R	1405	blastx.2	(AF132952) CGI-18 protein [Homo sapiens]	gb AAD27727.1 AF132952.1	91% 84%	33 184	203 318
HOCPU56	HOCPU56R	1406	blastx.2	ARL3 [Homo sapiens]	gb AAA21654.1	100%	2	502
HOCPU81	HOCPU81R	1408	blastx.2	cysteine protease Mch2 isoform alpha [Homo sapiens]	gb AAC50168.1	91%	2	739
HOCPU01	HOCPU01R	1409	blastx.2	(AF052514) thymus specific serine peptidase [Homo sapiens]	gb AAC33563.1	73% 50% 87% 28%	129 113 566 483	440 571 589 587
HOCPU76	HOCPU76R	1411	blastx.2	(AF002705) beta prime COP [Rattus norvegicus]	gb AAB88018.1	99% 77%	2 423	421 524
HOCQA26	HOCQA26R	1413	blastx.2	interferon-inducible protein [Homo sapiens]	emb CAA59337.1	100% 71% 47%	205 410 360	378 571 473
HOCQA37	HOCQA37R	1414	blastx.2	lactoyl glutathione	dbj BAA02572.1	100%	136	276

	R			lyase [Homo sapiens]			82%	63	131
HOCQA86	HOCQA86 R	1415	blastx.2	proteoglycan core protein [Homo sapiens]		gb AAB00774.1	91%	84	392
HOCQB18	HOCQB18 R	1416	blastx.2	general transcription factor [Homo sapiens]		emb CAA37375.1	99%	3	473
HOCQB48	HOCQB48 R	1417	blastx.2	Na+-independent neutral and basic amino acid transporter [Homo sapiens]		dbj BAA11541.1	97%	4	555
HOCQC71	HOCQC71 R	1419	blastx.2	calcium binding protein [Homo sapiens]		dbj BAA23325.1	98%	126	419
HOCQD10	HOCQD10 R	1420	blastx.2	ribosomal protein L12 [Homo sapiens]		gb AAA36157.1	88%	152	637
HOCQD19	HOCQD19 R	1421	blastx.2	retinoid X receptor alpha [Rattus norvegicus]		gb AAA42093.1	80% 56%	3 424	392 567
HOCQD42	HOCQD42 R	1423	blastx.2	(AF095257) heterogeneous nuclear ribonucleoprotein C1/C2; hnRNP C1/C2 [Mus musculus]		gb AAD03717.1	86% 65% 59% 53%	1 299 474 474	294 475 614 599
HOCQD45	HOCQD45 R	1424	blastx.2	glyceraldehyde-3-phosphate dehydrogenase (EC 1.2.1.12), eutheric tissue - desert jerboa		pir JC5370 JC5370	91% 54% 100%	92 495 457	463 785 492
HOCQE35	HOCQE35 R	1425	blastx.2	ribosomal protein L7a large subunit [Homo sapiens]		gb AAA60282.1	74%	6	437

HOCQG94	HOCQG94 R	1426	blastx.2	actin [Brugia malayi]	emb CAB06627.1	62%	9	629
HOCQH81	HOCQH81 R	1427	blastx.2	(AF038952) cofactor A protein [Homo sapiens]	gb AAC39866.1	58%	254	652
HOCQI31	HOCQI31R	1428	blastx.2	prostacyclin-stimulating factor, PSF 1 sapiens]	gb AAB32370.1	91%	144	242
HOCQM24	HOCQM24 R	1430	blastx.2	hnRNPCore protein A1 [Homo sapiens]	emb CAA56072.1	100%	1	324
HODAF78	HODAF78 R	1431	blastx.2	(AC004638) amyloid precursor protein-binding protein 1 (APP-B1) [Homo sapiens]	gb AAC23784.1	100%	3	230
HODCZ52	HODCZ52 R	1434	blastx.2	tissue-specific secretory protein [synthetic construct]	emb CAA01433.1	55%	8	274
HODDI57	HODDI57R	1435	blastx.2	(AF113514) histone acetyltransferase MORF [Homo sapiens]	gb AAF00095.1	66%	26	133
						100%	216	233
						96%	6	167
						68%	164	304
						36%	12	158
						33%	12	170
						35%	45	164
						30%	39	164
						25%	30	176
						30%	24	164
						27%	36	146
						26%	13	168
						37%	81	161
						46%	53	91

HODER57	HODER57 R	1440	blastx.2	Method: conceptual translation supplied by author [Homo sapiens]	gb AAA91179.1	34%	6	101
HODFC44	HODFC44R P00	1449	blastx.2	(AF216754) over- expressed breast tumor protein [Homo sapiens]	gb AAF25683.1 AF2 16754_1	98%	1	207
HODFJ14	HODFJ14R	1453	blastx.2	Ran_GTP binding protein 5 [Homo sapiens]	emb CAA70103.1	100%	2	181
HODFO16	HODFO16 R	1459	blastx.2	selenium donor protein [Homo sapiens]	gb AAA87567.1	100%	305	409
HODFO64	HODFO64 R	1460	blastx.2	zinc finger protein ZNF136 [Homo sapiens]	gb AAC50261.1	78%	16	153
						70%	1	153
						70%	1	153
						64%	1	153
						66%	1	153
						71%	16	153
						58%	1	153
						58%	1	153
						60%	1	156
						58%	1	153
						58%	1	153
						58%	7	153
						54%	10	153
						75%	150	233
						67%	156	239
						77%	174	239
						90%	174	233
						62%	153	239

HODFP51	HODFP51R	1461	blastx.2	pre-mRNA splicing factor [Homo sapiens]	gb AAA36648.1	45%	159	329
HODFQ19	HODFQ19R	1462	blastx.2	DNA topoisomerase III [Homo sapiens]	gb AAB03694.1	63%	153	242
HODFQ37	HODFQ37R	1463	blastx.2	pancreatic peptidylglycine alpha-amidating monooxygenase, 1 1	gb AAB32776.1	80%	174	233
HODGB69	HODGB69R	1475	blastx.2	protein 4 [Homo sapiens]	gb AAB58952.1	60%	153	236
HODGH30	HODGH30	1478	blastx.2	IDN4-GGTR14	sp Q9Y6Y5 Q9Y6Y5	54%	49	153
						51%	242	328
						70%	269	328
						55%	239	319
						60%	174	233
						43%	242	337
						81%	272	319
						54%	248	319
						32%	159	314
						34%	174	314
						48%	242	328
						52%	251	319
						41%	239	325
						41%	248	319
						37%	239	325
						77%	74	439
						44%	104	436
						89%	7	453
						92%	47	499
						93%	2	97
						25%	338	493
						89%	3	470
						90%	31	129

HODGH43	R	1479	blastx.2	PROTEIN. (AB005878) BYJ15 [Nicotiana tabacum]	dbj BAA21615.1	100%	48	116
HODGH65	R	1480	blastx.2	IDN4-GGTR14 PROTEIN.	sp Q9Y6Y5 Q9Y6Y5	96%	217	363
HODGN53	R	1482	blastx.2	(AF186461) ring finger protein Fxy [Rattus norvegicus]	gb AAD56247.1 AF1 86461_1	39%	41	127
HODGQ52	R	1487	blastx.2	unnamed protein product [unidentified]	emb CAB42187.1	82%	95	475
HODGW91	R	1489	blastx.2	phosphofructokinase [Homo sapiens]	gb AAA79220.1	25%	1	84
HODGZ63	R	1493	blastx.2	putative [Caenorhabditis elegans]	gb AAA28195.1	100%	118	189
HODHD23	R	1495	blastx.2	fused-ccdB [Escherichia coli]	emb CAA71575.1	93%	101	3
HODHE54	R	1498	blastx.2	lysyl oxidase-like protein [Homo sapiens]	gb AAA50162.1	92%	394	347
HODHE88	R	1499	blastx.2	(AK001737) unnamed protein product [Homo sapiens]	dbj BAA91871.1	49%	190	462
HODHG56	R	1500	blastx.2	(AF151888) CGI-130 protein [Homo sapiens]	gb AAD34125.1 AF1 51888_1	57%	470	532
HODHK86	R	1503	blastx.2	(AB005299) BAI 3 [Homo sapiens]	dbj BAA25363.1	92%	24	104
HODJL36	R	1505	blastx.2	(AL031177)	emb CAA20118.1	100%	24	323
						96%	323	418
						32%	94	348
						83%	29	196
						100%	121	231
						93%	2	289
						88%	413	568
						48%	207	590
						40%	254	436

	A				dJ889N15.2.2 (26S Proteasome subunit p28 (Ankyrin 1		32%	26	118
HODJZ09	HODJZ09R	1506	blastx.2		prepronociceptin [Homo sapiens]	emb CAA66039.1	98%	64	558
HODKB82	HODKB82 R	1508	blastx.2		serine/threonine kinase [Rattus norvegicus]	emb CAB06294.1	96% 28%	3 348	338 473
HODKD64	HODKD64 R	1514	blastx.2		(AL096881) hypothetical protein [Homo sapiens]	emb CAB51405.1	66%	503	333
HODKK26	HODKK26 R	1519	blastx.2		calmodulin [Homo sapiens]	dbj BAA08302.1	99% 45% 34% 100% 75%	59 41 38 463 417	424 286 391 507 464
HODKK40	HODKK40 R	1520	blastx.2		ribosomal protein S6 [Homo sapiens]	gb AAA60289.1	99%	1	624
HODKK73	HODKK73 R	1521	blastx.2		acidic ribosomal phosphoprotein (P0) [Homo sapiens]	gb AAA36470.1	96% 71% 28%	3 331 416	344 651 682
HODKN65	HODKN65 R	1526	blastx.2		homologue to elongation factor 1- gamma from A.salina [Homo sapiens]	emb CAA45089.1	76%	5	538
HOECR39	HOECR39R	1527	blastx.2		(AF216306) DCRC-1 [Mus musculus]	gb AAF32294.1 AF2 16306 1	58%	116	424
HOFAB77	HOFAB77R	1528	blastx.2		(AC007193) PPP5_HUMAN [Homo sapiens]	gb AAD22669.1 AC0 07193_3	80% 47%	16 450	489 512

HOFMF79	HOFMF79 RA	1530	blastx.2	cytochrome b [Canis familiaris]	gb AAD04775.1	80% 38%	4 305	339 430
HOFMJ88	HOFMJ88R	1531	blastx.2	receptor protein- tyrosine kinase [Homo sapiens]	gb AAA61139.1	76%	17	370
HOFMM8 4	HOFMM84 R	1533	blastx.2	hydroxymethylglutaryl- CoA reductase (NADPH) (EC 1.1.1.34) - mouse (fragments)	pir A43533 A43533	72% 85%	112 254	252 274
HOFMN93	HOFMN93 R	1534	blastx.2	(AF133669) ARL-6 interacting protein-1 [Mus musculus]	gb AAD33046.1 AF1 33669_1	61% 84%	36 214	299 327
HOFMP59	HOFMP59 R	1535	blastx.2	mitochondrial acetoacetyl-CoA thiolase [Homo sapiens]	dbj BAA01387.1	77% 83%	1 369	360 422
HOFMT68	HOFMT68 R	1536	blastx.2	RNAse L inhibitor [Mus musculus]	gb AAC24730.1	52% 40%	137 264	547 581
HOFMT69	HOFMT69 R	1537	blastx.2	HETEROGENEOUS NUCLEAR RIBONUCLEOPROTE IN M (HNRNP M).	sp P52272 ROM_HU MAN	80% 75% 39%	127 27 98	264 122 316
HOFMU92	HOFMU92 R	1538	blastx.2	(AP000694) chromatin assembly factor 1, subunit B (p60) [Homo sapiens]	dbj BAA89426.1	63%	124	432
HOFNF63	HOFNF63R	1540	blastx.2	phosphomannomutase [Homo sapiens]	gb AAC51368.1	70%	26	478
HOFNF76	HOFNF76R	1541	blastx.2	(AB002806) OS-9	dbj BAA24363.1	94%	17	370

HOFNG51	HOFNG51 R	1542	blastx.2	isoform 2 is missing nt 1642-1806; OS-9 1 (AB006679) ATP binding protein [Homo sapiens]	dbj BAA21881.1	79%	157	414
HOFNK44	HOFNK44 R	1543	blastx.2	osteonectin precursor [Bos taurus]	gb AAA30678.1	96%	19	186
HOFNY53	HOFNY53 R	1544	blastx.2	(AL034417) bK215D11.1 (RNA- binding protein regulatory subunit) [Homo sapiens]	emb CAB52550.1	91%	17	232
HOFOB65	HOFOB65R	1545	blastx.2	pyruvate dehydrogenase E1- alpha precursor [Homo sapiens]	gb AAA60055.1	74%	16	600
HOFOB79	HOFOB79R P00A	1546	blastx.2	KERATIN TYPE II CYTOSKELETAL 8 (FRAGMENT).	sp Q29386 Q29386	84%	80	397
HOFOE22	HOFOE22R	1547	blastx.2	activin receptor type I [Bos taurus]	gb AAB02696.1	98%	22	345
HOFOF47	HOFOF47R	1548	blastx.2	(AF129075) T- COMPLEX PROTEIN 1, THETA SUBUNIT (TCP-1-THETA) [Homo sapiens]	gb AAD17375.1	98% 62% 100%	18 245 244	242 460 270
HOFOF56	HOFOF56R	1549	blastx.2	protein disulfide isomerase [Mus musculus]	gb AAA39906.1	85% 57% 64% 36%	115 109 35 204	219 219 115 350

HOGCF48	HOGCF48R	1553	blastx.2	hepatitis C-associated microtubular aggregate protein p44 [Homo sapiens]	dbj BAA06043.1	40%	263	352
HOGCG83	HOGCG83 R	1554	blastx.2	keratin [Homo sapiens]	emb CAA31695.1	79% 81% 59%	50 309 21	310 482 113
HOGCI28	HOGCI28R	1556	blastx.2	complement component C3 [Homo sapiens]	gb AAA85332.1	93% 83%	3 173	179 337
HOGCI10	HOGCI10R	1557	blastx.2	(AF032667) rexo70 [Rattus norvegicus]	gb AAC01579.1	94%	103	471
HOGCI55	HOGCI55R	1559	blastx.2	Grb14 [Homo sapiens]	gb AAC15861.1	95%	13	459
HOGCT44	HOGCT44 R	1562	blastx.2	casein kinase I-alpha [Homo sapiens]	gb AAC41760.1	100%	31	183
HOGCV85	HOGCV85 R	1563	blastx.2	heparin binding protein [Homo sapiens]	gb AAA58636.1	76% 73%	3 398	521 535
HOGCV93	HOGCV93 R	1564	blastx.2	elongation factor 1 alpha [Oryctolagus cuniculus]	gb AAA18502.1	79%	43	504
HOGCY12	HOGCY12 R	1565	blastx.2	elongation factor 1 alpha [Oryctolagus cuniculus]	gb AAA18502.1	97% 41%	8 302	340 547
HOGCY58	HOGCY58 R	1566	blastx.2	lipocortin II [Homo sapiens]	dbj BAA00013.1	94% 70% 30%	3 332 150	329 517 326
HOGCY74	HOGCY74 R	1567	blastx.2	extracellular matrix protein BM-40 (AA 1 -	emb CAA68724.1	100%	3	260

HOGDD29	HOGDD29 R	1568	blastx.2	303) [Homo sapiens] drebrin E2 [Homo sapiens]	gb AAA16256.1	88%	3	152
HOGDG03	HOGDG03 R	1570	blastx.2	l-caldesmon II [Homo sapiens]	dbj BAA14419.1	95% 87%	191 393	388 491
HOGDI44	HOGDI44R	1572	blastx.2	neutrophil gelatinase associated lipocalin [Homo sapiens]	emb CAA58127.1	100%	55	192
HOGDO25	HOGDO25 R	1574	blastx.2	XIAP associated factor-1 (ZAP-1) [Homo sapiens]	emb CAA68030.1	100%	2	163
HOGDO58	HOGDO58 R	1575	blastx.2	acidic ribosomal phosphoprotein (P0) [Homo sapiens]	gb AAA36470.1	65%	86	373
HOGDP10	HOGDP10 R	1576	blastx.2	keratin [Homo sapiens]	emb CAA73943.1	89%	3	287
HOGDQ95	HOGDQ95 R	1578	blastx.2	FUSE binding protein 3 [Homo sapiens]	gb AAC50893.1	90% 32% 62% 48%	70 157 390 413	435 378 461 493
HOGDR70	HOGDR70 R	1579	blastx.2	gamma subunit of CCT chaperonin [Homo sapiens]	emb CAA52808.1	83%	102	578
HOGDV93	HOGDV93 R	1580	blastx.2	glyceraldehyde 3-phosphate dehydrogenase (EC 1.2.1.12) [Homo sapiens]	gb AAA52496.1	98%	4	414
HOGEA27	HOGEA27	1581	blastx.2	cytokeratin 8 [Homo sapiens]	gb AAA35763.1	81%	2	160

	R			sapiens]				
HOGED85	HOGED85 R	1582	blastx.2	AP-3 complex beta3A subunit [Homo sapiens]	gb AAD03778.1	75% 85% 25%	3 305 6	482 445 173
HOG EK25	HOG EK25 R	1583	blastx.2	HLA-Aw34.2 antigen [Homo sapiens]	emb CAA43874.1	91%	38	316
HOG EN30	HOG EN30 R	1584	blastx.2	regulatory subunit RI alpha [Homo sapiens]	emb CAA01027.1	83%	140	322
HOG EP69	HOG EP69R	1587	blastx.2	(AF056182) G-protein beta subunit [Emericella nidulans]	gb AAC33436.1	75% 78%	83 219	205 260
HOG ET60	HOG ET60R	1588	blastx.2	Plakoglobin [Homo sapiens]	gb AAA64895.1	67%	155	367
HOG EW58	HOG EW58 R	1590	blastx.2	focal adhesion kinase [Homo sapiens]	gb AAA35819.1	96%	4	414
HOG EZ03	HOG EZ03R	1592	blastx.2	kinase [Homo sapiens]	emb CAA65450.1	87% 83%	52 18	144 53
HO OHL68	HO OHL68 R	1601	blastx.2	ZZ:beta-Gal' IgG- binding fusion protein [unidentified cloning 1]	gb AAB00807.1	92%	373	543
HO OHP84	HO OHP84 R	1602	blastx.2	(AF013215) ribosomal protein S2 [Bos taurus]	gb AAB65437.1	82%	1	156
HO OHQ09	HO OHQ09 R	1603	blastx.2	pfxblue fusion protein [synthetic construct]	gb AAA72865.1	63%	292	423
HO OHQ83	HO OHQ83 R	1604	blastx.2	(AB000910) ribosomal protein [Sus scrofa]	dbj BAA19210.1	100%	85	399
HO OHR81	HO OHR81 R	1605	blastx.2	pfxblue fusion protein [synthetic construct]	gb AAA72865.1	73% 78%	336 464	458 505
HO OHT13	HO OHT13	1608	blastx.2	steroid receptor TR2-11	gb AAA36761.1	95%	3	188

	R				[Homo sapiens]			95%	193	264
HOOIA46	HOOIA46R	1610	blastx.2		cpn10 protein [Bos taurus]		emb CAA49288.1	100%	3	239
HOOIB54	HOOIB54R	1613	blastx.2		ribosomal protein L23a [Homo sapiens]		gb AAB17510.1	75%	89	199
HOOIG71	HOOIG71R	1615	blastx.2		ribosomal protein L27 [Homo sapiens]		gb AAA19815.1	98%	2	250
HOOJN84	HOOJN84R	1624	blastx.2		IEF 7442 [Homo sapiens]		emb CAA51360.1	100%	4	189
HOOJT32	HOOJT32R	1629	blastx.2		ribosomal protein L23a [Homo sapiens]		gb AAA03341.1	76%	34	237
HOOJT65	HOOJT65R	1630	blastx.2		(AJ388520) Ribosomal protein [Canis familiaris]		emb CAB46822.1	88%	43	123
HOOJY44	HOOJY44R	1636	blastx.2		human homologue of rat phosphatidylethanolamine binding protein [Homo sapiens]		dbj BAA03684.1	100%	2	184
HOOJY80	HOOJY80R	1637	blastx.2		cytochrome b5 [Homo sapiens]		gb AAA35729.1	98%	61	462
HOOJY92	HOOJY92R	1638	blastx.2		mitochondrial matrix protein [Homo sapiens]		gb AAA60127.1	98% 91% 66% 62%	48 403 513 341	344 513 686 445
HOOKN43	HOOKN43R	1640	blastx.2		ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1]		gb AAB00807.1	63%	124	399
HOPJF95	HOPJF95R	1643	blastx.2		nucleolar protein p40		gb AAB46731.1	91%	209	511

HOPJG60	HOPJG60R	1644	blastx.2	[Homo sapiens] (AF161386) HSPC268 [Homo sapiens]	gb AAF28946.1 AF1 61386.1	90%	130	219
HOPJG79	HOPJG79R	1646	blastx.2	prosomal P27K protein [Homo sapiens]	emb CAA42052.1	97%	3	551
HOPJH65	HOPJH65R	1650	blastx.2	C gamma 3 [Homo sapiens]	emb CAA27268.1	57%	535	594
						46%	42	476
						44%	182	460
						34%	172	543
						100%	2	49
HOPKA06	HOPKA06 R	1656	blastx.2	homeotic protein HOX4E - human	pir A42008 A42008	95%	2	655
HOPKG16	HOPKG16, R	1659	blastx.2	scar protein [Homo sapiens]	gb AAA36597.1	98%	1	432
HOPKG47	HOPKG47 R	1660	blastx.2	(AL050318) dJ977B1.5 (myosin regulatory light chain 2, smooth muscle isoform) [Homo sapiens]	emb CAB75369.1	98%	46	519
						83%	525	560
HOPKG83	HOPKG83 R	1661	blastx.2	elongation factor-1- beta [Homo sapiens]	emb CAA43019.1	99%	34	594
						50%	584	709
						84%	615	653
HOPKK38	HOPKK38 R	1662	blastx.2	(AF077539) contains similarity to human melanoma antigen p15 (GB: U19796) [Caenorhabditis elegans]	gb AAC26291.1	34%	60	380
						61%	379	417
HOPKN14	HOPKN14 R	1663	blastx.2	aldolase A (EC 4.1.3.13) [Homo sapiens]	gb AAA51690.1	100%	2	460

HOPKN67	HOPKN67 R	1664	blastx.2	17,000 dalton myosin light chain [Bos taurus]	emb CAA38722.1	94%	31	483
HOPKO04	HOPKO04 RA	1665	blastx.2	(AL137423) hypothetical protein [Homo sapiens]	emb CAB70733.1	96%	1	81
HOPKO61	HOPKO61 R	1666	blastx.2	Six5 [Mus musculus]	dbj BAA11824.1	76%	4	405
HOPKP45	HOPKP45R	1667	blastx.2	PAX8=paired-box- protein [alternatively spliced] [human, 1]	gb AAB34216.1	90% 90% 41% 35%	285 154 494 385	527 285 601 435
HOPKQ20	HOPKQ20 R	1668	blastx.2	ribosomal protein S20 [Homo sapiens]	gb AAA60286.1	82%	115	435
HOPKQ82	HOPKQ82 R	1669	blastx.2	(AF063243) ribosomal protein L30 [Bos taurus]	gb AAC16388.1	89%	28	498
HOPKR56	HOPKR56R	1670	blastx.2	unnamed protein product [Homo sapiens]	emb CAA02873.1	100%	6	173
HOPKU33	HOPKU33 R	1671	blastx.2	ribosomal protein L11 [Homo sapiens]	gb AAC15856.1	86%	5	514
HOVBK49	HOVBK49 R	1674	blastx.2	(AL080125) hypothetical protein [Homo sapiens]	emb CAB45723.1	85% 80% 75% 70% 79% 60% 73% 66% 63%	12 21 21 21 21 21 21 21 21 21	155 155 155 170 152 203 155 155 152

HOVBS15	HOVBS15R	1675	blastx.2	(AF105715) ubiquitous nuclear protein [Gallus gallus]	gb AAD46422.1 AF1 05715_1	61%	12	152
						63%	21	152
						40%	112	369
						40%	121	375
						38%	121	375
						38%	121	372
						36%	121	375
						46%	24	170
						34%	121	375
						34%	121	375
						32%	121	375
						38%	27	173
						42%	258	407
						34%	178	369
						36%	258	407
						37%	264	407
						34%	261	407
						39%	264	407
						34%	258	407
						32%	258	407
						31%	261	401
						30%	258	407
						36%	27	152
						52%	243	305
						28%	42	146
HOVBS15	HOVBS15R	1675	blastx.2	(AF105715) ubiquitous nuclear protein [Gallus gallus]	gb AAD46422.1 AF1 05715_1	50%	246	434
						55%	50	109
						34%	112	249
HOVBS15	HOVBS15R	1675	blastx.2	(AF105715) ubiquitous nuclear protein [Gallus gallus]	gb AAD46422.1 AF1 05715_1	86%	182	319
HOVBS15	HOVBS15R	1675	blastx.2	(AF105715) ubiquitous nuclear protein [Gallus gallus]	gb AAD46422.1 AF1 05715_1	75%	340	399

HOVCN03	HOVCN03 R	1678	blastx.2	kinase C [Oreochromis niloticus] (AJ005798) thyroid hormone receptor alpha 2 [Sus scrofa]	emb CAA06702.1	72%	309	341
HOVCU89	HOVCU89 R	1680	blastx.2	ribosomal protein L18a - rat	pir S03957 R5RT18	72%	36	578
HOVCV33	HOVCV33 R	1681	blastx.2	alpha-smooth muscle actin [Oryctolagus cuniculus]	emb CAA43139.1	92% 50%	1 287	321 454
HOVCW45	HOVCW45 R	1682	blastx.2	(AL137585) hypothetical protein [Homo sapiens]	emb CAB70827.1	97% 100% 80% 21% 23%	2 372 463 5 35	220 464 522 196 190
HOVCZ45	HOVCZ45 R	1684	blastx.2	retrovirus-related polyprotein pseudogene - human 1	pir A44282 A44282	65% 61%	2 444	361 506
HOVDB61	HOVDB61 R	1686	blastx.2	(AF067728) transactivating protein BRIDGE [Rattus norvegicus]	gb AAD32925.1 AF067728_1	89%	91	204
HOVDB65	HOVDB65 R	1688	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1]	gb AAB00807.1	96%	112	282
HOVDG71	HOVDG71 R	1692	blastx.2	23 kD highly basic protein [Homo sapiens]	emb CAA40254.1	75% 81% 27%	116 3 103	226 98 210
HOVDH09	HOVDH09 R	1693	blastx.2	binding protein [Homo sapiens]	gb AAA36032.1	98% 81%	15 405	299 485

HOVDH75	HOVDH75 R	1694	blastx.2	ZZ:beta-Gal' IgG- binding fusion protein [unidentified cloning 1]	gb AAB00807.1	81% 44%	316 299	381 433
HOVDV70	HOVDV70 R	1696	blastx.2	(AF151866) CGI-108 protein [Homo sapiens]	gb AAD34103.1 AF1 51866 1	69%	121	297
HOVEF34	HOVEF34R	1703	blastx.2	MTHSP75 [Homo sapiens]	gb AAA67526.1	71% 90%	246 580	611 612
HOVEF81	HOVEF81R	1704	blastx.2	thyroid receptor interactor [Homo sapiens]	gb AAA73877.1	99%	49	393
HOVEL51	HOVEL51R	1707	blastx.2	cytochrome c-1 [Homo sapiens]	gb AAA52135.1	71% 77%	96 21	209 47
HOVEY58	HOVEY58 R	1712	blastx.2	ZZ:beta-Gal' IgG- binding fusion protein [unidentified cloning 1]	gb AAB00807.1	93%	277	369
HOVJJ09	HOVJJ09R	1717	blastx.2	Lutheran blood group glycoprotein [Homo sapiens]	emb CAA58449.1	100%	28	576
HOVJR56	HOVJR56R	1718	blastx.2	macrophage migration inhibitory factor [Homo sapiens]	gb AAA21814.1	100%	4	186
HOVJU75	HOVJU75R	1719	blastx.2	laminin-binding protein [Homo sapiens]	gb AAA36161.1	92%	64	648
HOVJW17	HOVJW17 R	1720	blastx.2	HLA-DR-beta-A [Homo sapiens]	emb CAA00596.1	92%	95	217
HOVJY68	HOVJY68R	1721	blastx.2	23 kD highly basic protein [Homo sapiens]	emb CAA40254.1	94% 97%	217 15	570 221

HOVKE66	HOVKE66 R	1723	blastx.2	unnamed protein product [unidentified]	emb CAB69339.1	35%	149	241
HOVKG18	HOVKG18 R	1725	blastx.2	PBG-D (aa 1-344) [Homo sapiens]	emb CAA27801.1	98%	2	487
HPAMB11	HPAMB11 R	1726	blastx.2	transformation-related protein [Homo sapiens]	gb AAA36776.1	98%	2	379
HPAMB60	HPAMB60 R	1727	blastx.2	poly(A)-binding protein [Homo sapiens]	gb AAD08718.1	66%	353	601
HPAMB93	HPAMB93 R	1729	blastx.2	heat-shock protein [Canis familiaris]	gb AAA87172.1	80%	2	679
HPAMC04	HPAMC04 R	1730	blastx.2	ADP-ribosylation factor [Homo sapiens]	gb AAA57126.1	41%	65	556
HPAMC19	HPAMC19 R	1731	blastx.2	Nascent polypeptide associated complex alpha subunit [Homo sapiens]	emb CAA56869.1	31%	65	553
HPAMC27	HPAMC27 R	1732	blastx.2	protein synthesis initiation factor 4A [Mus musculus]	emb CAA40268.1	38%	496	684
HPAMC90	HPAMC90 R	1733	blastx.2	HBp15/L22 [Sus scrofa]	dbj BAA04547.1	74%	17	253
HPAMD56	HPAMD56 R	1734	blastx.2	isolog of yeast sui1 and rice gos2; putative [Homo sapiens]	gb AAA60602.1	95%	231	299
HPAME35	HPAME35 R	1735	blastx.2	amphiglycan [Homo sapiens]	emb CAA47406.1	50%	140	331
						94%	89	676
						88%	64	786
						50%	746	805
						97%	84	464
						99%	136	456
						80%	26	451

HPAMF16	HPAMF16 R	1737	blastx.2	actin [Dictyostelium discoideum]	gb AAA74186.1	45% 73% 42%	178 452 619	414 520 732
HPAMF38	HPAMF38 R	1738	blastx.2	(AF132970) CGI-36 protein [Homo sapiens]	gb AAD27745.1 AF1 32970.1	76%	63	434
HPAMG44	HPAMG44 R	1739	blastx.2	(AC004393) Similar to ribosomal protein L17 gb X62724 from 1 1	gb AAC18792.1	61% 59%	331 117	612 374
HPAMG54	HPAMG54 R	1740	blastx.2	(AF039752) histone deacetylase-2; HD-2 [Gallus gallus]	gb AAB96924.1	94% 95% 77% 68%	75 394 518 627	389 516 661 701
HPAM11	HPAM11R	1741	blastx.2	ribosomal protein S8 [Homo sapiens]	emb CAA47670.1	87%	11	592
HPAMJ71	HPAMJ71R	1742	blastx.2	ribosomal protein S7 [Homo sapiens]	emb CAA81022.1	97% 64% 63%	62 412 405	397 609 494
HPAMQ76	HPAMQ76 R	1744	blastx.2	23 kD highly basic protein [Homo sapiens]	emb CAA40254.1	100%	2	190
HPAMT47	HPAMT47 R	1745	blastx.2	(AF017153) putative RNA helicase and RNA dependent ATPase [Mus musculus]	gb AAC36129.1	100%	381	509
HPAMU33	HPAMU33 R	1746	blastx.2	23 kD highly basic protein [Homo sapiens]	emb CAA40254.1	98% 80%	2 472	493 600
HPAMW4 4	HPAMW44 R	1748	blastx.2	(AC006127) BRG-1- HUMAN [AA 812- 1440]; nuclear protein GRB1; 1 1 SNF2L4	gb AAC97986.1	69% 91% 42%	4 221 46	354 358 159

HPAMY45	HPAMY45 R	1749	blastx.2	[Homo sapiens] (AC004908) similar to ribosomal protein L23a; similar to P29316 (PID:g132848) [Homo sapiens]	gb AAD05196.1	95% 92%	294 220	563 297
HPAMZ14	HPAMZ14 R	1750	blastx.2	triosephosphate isomerase [Rattus norvegicus]	gb AAA42278.1	93% 61%	20 508	508 600
HPAMZ15	HPAMZ15 R	1751	blastx.2	(AJ06776) IF2 protein [Homo sapiens]	emb CAB44357.1	95%	3	149
HPAMZ81	HPAMZ81 R	1752	blastx.2	SP-40,40 prepropeptide (AA -22 to 427) [Homo sapiens]	emb CAA32847.1	99% 62%	3 581	599 676
HPANA05	HPANA05 R	1753	blastx.2	cell surface glycoprotein [Homo sapiens]	gb AAA36033.1	99% 61% 88%	107 466 579	487 729 605
HPANA07	HPANA07 R	1754	blastx.2	nucleolin [Homo sapiens]	gb AAA59954.1	92% 34% 58%	7 19 626	678 678 697
HPANA28	HPANA28 R	1755	blastx.2	cell surface glycoprotein [Homo sapiens]	gb AAA36033.1	100%	2	376
HPANB32	HPANB32R	1757	blastx.2	(AF078820) high mobility group protein [Spalax ehrenbergi]	gb AAC27653.2	93%	5	235
HPANE49	HPANE49R	1759	blastx.2	ribosomal protein S17 [Homo sapiens]	gb AAA60284.1	99%	8	412
HPANE52	HPANE52R	1760	blastx.2	23 kD highly basic	emb CAA40254.1	95%	13	624

HPANE87	HPANE87R	1761	blastx.2	protein [Homo sapiens] lactate dehydrogenase B [Homo sapiens]	emb CAA32033.1	82% 48%	119 34	592 174
HPANJ67	HPANJ67R	1762	blastx.2	lipocortin II [Homo sapiens]	dbj BAA00013.1	100%	3	119
HPCOJ59	HPCOJ59R	1766	blastx.2	predicted using Genefinder; Similarity to Drosophila RNA I this gene [Caenorhabditis elegans]	emb CAB01127.1	32%	60	260
HPCOL81	HPCOL81R	1770	blastx.2	histone H2A.Z (AA 1-127) [Bos taurus]	emb CAA36554.1	100%	36	179
HPCOO90	HPCOO90R	1771	blastx.2	ribosomal protein L37a [Homo sapiens]	gb AAA60280.1	98%	60	335
HPCOO95	HPCOO95R	1772	blastx.2	HYPOTHETICAL PROTEIN (FRAGMENT).	sp Q16465 YZA1_HUMAN	100%	337	2
HPCOP23	HPCOP23R	1773	blastx.2	ribosomal protein [Homo sapiens]	gb AAA16105.1	88%	53	427
HPCOR52	HPCOR52R	1778	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1]	gb AAB00807.1	94%	136	306
HPCOV35	HPCOV35R	1780	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1]	gb AAB00807.1	94%	244	414
HPCOV41	HPCOV41R	1781	blastx.2	Csa-19 [Homo sapiens]	gb AAA86463.1	94%	54	356
HPCPD26	HPCPD26R	1784	blastx.2	alpha subunit (aa 1-394) [Bos taurus]	emb CAA27137.1	97%	3	314

HPCPH52	HPCPH52R	1788	blastx.2	antizyme inhibitor [Homo sapiens]	dbj BAA23593.1	100%	3	101
HPCPU27	HPCPU27R	1790	blastx.2	enhancer factor I chain A-D - rat	pir JC2022 JC2022	61%	3	185
HPCQT88	HPCQT88R	1797	blastx.2	integrin associated protein [Homo sapiens]	emb CAA80977.1	93% 90%	1 422	327 451
HPCQX47	HPCQX47R	1800	blastx.2	ribosomal protein L7a large subunit [Homo sapiens]	gb AAA60282.1	97% 92%	222 2	326 40
HPCTD21	HPCTD21R	1802	blastx.2	ZZ:beta-Gal' IgG- binding fusion protein [unidentified cloning 1]	gb AAB00807.1	96%	336	506
HPCTD23	HPCTD23R	1803	blastx.2	putative progesterone binding protein [Homo sapiens]	emb CAA73248.1	98%	2	190
HPCTD25	HPCTD25R	1804	blastx.2	ZZ:beta-Gal' IgG- binding fusion protein [unidentified cloning 1]	gb AAB00807.1	96%	374	544
HPCTF29	HPCTF29R	1806	blastx.2	ZZ:beta-Gal' IgG- binding fusion protein [unidentified cloning 1]	gb AAB00807.1	96%	209	379
HPCTF83	HPCTF83R	1807	blastx.2	major histocompatibility complex class II antigen beta chain, 1 Partial Mutant, 57 aa [Homo sapiens]	gb AAB28826.1	92%	58	177
HPCTI86	HPCTI86R	1809	blastx.2	H+-ATP synthase subunit b [Homo sapiens]	emb CAA42782.1	99%	1	306

HPCTO69	HPCTO69R	1811	blastx.2	(AF042857) lung cancer antigen NY-LU-12 variant A [Homo sapiens]	gb AAC05826.1	99%	77	538
HPCTV40	HPCTV40R	1815	blastx.2	ribosomal protein L35a (aa 1-110) [Rattus norvegicus]	emb CAA27193.1	99%	48	377
HPCTV53	HPCTV53R	1816	blastx.2	8.2 kDa differentiation factor [Homo sapiens]	emb CAA56100.1	85% 91% 100%	26 138 250	148 248 318
HPCTV92	HPCTV92R	1817	blastx.2	(AL117452) hypothetical protein [Homo sapiens]	emb CAB55934.1	85%	20	205
HPCTX22	HPCTX22R	1818	blastx.2	Aop1_Human, MER5(Aop1_Mouse)-like protein [Homo sapiens]	dbj BAA08389.1	100%	1	153
HPDOF81	HPDOF81R	1822	blastx.2	2,4-dienoyl-CoA reductase [Homo sapiens]	gb AAA67551.1	95% 64%	3 229	254 342
HPDOP05	HPDOP05R	1823	blastx.2	RNA polymerase II, elongation factor-like protein [Homo sapiens]	emb CAA87392.1	100%	2	412
HPDOP20	HPDOP20R	1824	blastx.2	MHC HLA-DR-beta chain precursor old gene name 'HLA-DRA1' [Homo sapiens]	gb AAA59831.1	84%	45	542
HPDOS87	HPDOS87R	1825	blastx.2	40S ribosomal protein S14 [Podocoryne carnea]	emb CAA50506.1	95% 54% 91%	84 14 209	209 85 244

HPDOU54	HPDOU54 R	1826	blastx.2	N-acetyl-beta-glucosaminidase prepro-polypeptide [Homo sapiens]	gb AAA51828.1	54%	1	66
HPDOZ43	HPDOZ43R	1827	blastx.2	tripeptidyl peptidase II [Homo sapiens]	gb AAA63263.1	94%	64	489
HPDPC90	HPDPC90R A	1829	blastx.2	(AF073298) small EDRK-rich factor 2. [Homo sapiens]	gb AAC63516.1	98%	318	485
HPDPH14	HPDPH14R	1830	blastx.2	Q1Z7F5 [Homo sapiens]	gb AAA36021.1	92% 87%	121 87	291 110
HPDPQ16	HPDPQ16R	1835	blastx.2	ZZ:beta-Gal' IgG-binding fusion protein [unidentified cloning 1]	gb AAB00807.1	52%	349	519
HPDPR73	HPDPR73R	1836	blastx.2	(AJ010046) guanine nucleotide-exchange factor [Homo sapiens]	emb CAA08974.1	94%	131	460
HPDPS51	HPDPS51R	1837	blastx.2	(AF053356) ORF3, splicevariantc [Homo sapiens]	gb AAC78797.1	76%	2	214
HPDPS90	HPDPS90R	1838	blastx.2	(AB021643) gonadotropin inducible transcription repressor-3 [Homo sapiens]	dbj BAA86989.1	42% 36% 36% 32% 37% 48% 57% 60% 42%	128 125 125 155 292 325 325 325 325	337 319 319 319 399 402 387 384 402

HPDPX12	HPDPX12R P00B	1841	blastx.2		ribosomal protein S17 [Homo sapiens]	gb AAA60284.1	32%	390	518
HPDPY83	HPDPY83R P00B	1842	blastx.2		prothymosin alpha [Homo sapiens]	gb AAA60213.1	96%	199	393
HPDQC34	HPDQC34R	1843	blastx.2		(AF038129) polyubiquitin [Ovis aries]	gb AAB92373.1	95%	7	642
							94%	7	642
							97%	7	453
							94%	226	642
							64%	639	689
							61%	639	692
							61%	639	692
HPDQH11	HPDQH11 R	1845	blastx.2		ribosomal protein L37a [Homo sapiens]	gb AAA60280.1	100%	68	334
HPDQH34	HPDQH34 R	1846	blastx.2		(AF115850) PAR protein [Homo sapiens]	gb AAD09822.1	73%	3	371
							94%	345	494
							85%	226	267
							41%	178	240
HPDQI50	HPDQI50R	1847	blastx.2		succinate dehydrogenase flavoprotein subunit [Homo sapiens]	gb AAA20683.1	99%	18	539
HPDQI55	HPDQI55R	1848	blastx.2		(AL022577) dJ353H6.2.2 (SW1/SNF related, matrix associated, 1 (SNF2L1))	emb CAA18608.1	96%	1	441

					(PUTATIVE isoform 2) [Homo sapiens]				
HPDQR20	HPDQR20R	1851	blastx.2		RNA polymerase II 140 kDa subunit. [Homo sapiens]	emb CAA45124.1	91% 60%	10 555	639 761
HPDQR88	HPDQR88R	1852	blastx.2		similar to putative ATP-dependent RNA helicase K03H1.2 of C.elegans(S41025) [Homo sapiens]	dbj BAA13213.1	90% 80%	2 555	550 584
HPDQS25	HPDQS25R	1854	blastx.2		Cctg [Xenopus laevis]	emb CAA59350.1	85% 72%	4 258	264 410
HPDQT32	HPDQT32R	1858	blastx.2		neuroleukin [Homo sapiens]	gb AAA36368.1	100%	3	410
HPDQU81	HPDQU81 R	1859	blastx.2		(AF068227) putative transmembrane protein [Homo sapiens]	gb AAC27614.1	98%	3	269
HPDQV07	HPDQV07 R	1860	blastx.2		ribosomal protein S7 [Homo sapiens]	emb CAA81022.1	71%	- 35	574
HPDQW39	HPDQW39 R	1862	blastx.2		(AF133093) ARD-1 N- acetyltransferase homologue [Mus musculus]	gb AAF22155.1 AF1 33093_10	100% 70%	113 466	466 705
HPDQX13	HPDQX13 R	1863	blastx.2		Histone H3 [Asparagus officinalis]	emb CAA57811.1	72%	119	337
HPDQY23	HPDQY23 R	1864	blastx.2		DNA binding protein [Homo sapiens]	emb CAB10847.1	97%	3	443
HPDQZ65	HPDQZ65R	1869	blastx.2		(AF199488) beta-actin [Coturnix coturnix]	gb AAF13710.1 AF1 99488_1	100% 63%	3 446	443 694

HPDRA44	HPDRA44R	1870	blastx.2	japonica] interferon regulatory factor 7 [Mus musculus]	gb AAB18626.1	72% 45%	4 362	240 559
HPDRA50	HPDRA50R	1871	blastx.2	actin [Diadromus pulchellus]	emb CAA62806.1	75%	16	189
HPDRF65	HPDRF65R	1872	blastx.2	ribosomal protein L8 [Homo sapiens]	emb CAA82248.1	58% 95% 50%	281 21 505	748 236 753
HPDRG73	HPDRG73R	1874	blastx.2	Ran [Canis familiaris]	emb CAA77980.1	94% 84%	50 451	460 528
HPDRM93	HPDRM93 R	1876	blastx.2	ribosomal protein L37 [Homo sapiens]	dbj BAA04888.1	86%	12	302
HPDRO04	HPDRO04R	1877	blastx.2	ribosomal protein L37 [Homo sapiens]	dbj BAA04888.1	100%	17	307
HPDRP36	HPDRP36R	1879	blastx.2	GLI-Krupple related protein [Homo sapiens]	gb AAA59467.1	100% 37% 78%	30 36 304	317 260 372
HPDRP41	HPDRP41R	1880	blastx.2	UHX1 protein [Homo sapiens]	gb AAC50450.1	88%	2	739
HPDRQ66	HPDRQ66R	1881	blastx.2	ribosomal protein [Homo sapiens]	emb CAA81488.1	91%	81	290
HPDRQ84	HPDRQ84R	1882	blastx.2	Nascent polypeptide associated complex alpha subunit [Homo sapiens]	emb CAA56869.1	79%	4	555
HPDRR71	HPDRR71R	1883	blastx.2	(AF081484) alpha- tubulin isoform 1 [Homo sapiens]	gb AAC31959.1	98% 100%	16 381	390 422

HPDRS46	HPDRS46R	1885	blastx.2	(AF195094) gamma actin-like protein [Mus musculus]	gb AAF08293.1 AF195094_1	98% 69%	15 301	299 369
HPDRS87	HPDRS87R	1886	blastx.2	peptidylprolyl isomerase [Homo sapiens]	emb CAA37039.1	100%	14	508
HPDRT37	HPDRT37R	1888	blastx.2	leukocyte antigen F [Homo sapiens]	emb CAA34947.1	60%	3	560
HPDRU03	HPDRU03R	1890	blastx.2	(AL021366) cICK0721Q.4.1 (PHD finger protein 2) (isoform 2) [Homo sapiens]	emb CAA16159.1	98% 90%	59 247	244 276
HPDRU37	HPDRU37R	1891	blastx.2	HLA-A9HH antigen [Homo sapiens]	dbj BAA11936.1	96%	1	231
HPDRV73	HPDRV73R	1893	blastx.2	vimentin [Homo sapiens]	gb AAA61279.1	90%	4	573
HPDRW09	HPDRW09R	1895	blastx.2	MHC HLA-DR2(non-Dw2/non-Dw12)a glycoprotein beta-chain [Homo sapiens]	gb AAA36278.1	95%	1	222
HPDRY37	HPDRY37R	1897	blastx.2	type XVI collagen alpha 1 chain, alpha 1 (XVI) [human, 1]	gb AAB25797.1	64% 88% 50% 50% 48% 48% 52% 50% 44%	2 310 310 307 310 310 307 310 286	598 516 522 516 522 522 489 486 522

							46%	310	498
							45%	280	492
							42%	295	504
							46%	310	498
							46%	310	522
							42%	295	516
							53%	310	492
							44%	310	507
							45%	310	522
							48%	310	522
							44%	280	489
							46%	310	522
							47%	295	489
							59%	310	450
							46%	310	522
							31%	2	307
							47%	310	477
							43%	310	498
							40%	280	492
							47%	304	510
							37%	14	304
							48%	310	507
							44%	289	498
							40%	310	522
							43%	280	456
							46%	310	498
							42%	295	492
							46%	316	486
							65%	2	88
							62%	2	88

							43%	310	453
							41%	307	498
							64%	5	88
							58%	2	88
							41%	307	486
							62%	2	88
							43%	319	489
							61%	212	304
							40%	310	486
							54%	2	91
							44%	197	304
							42%	370	492
							30%	212	520
							31%	212	520
							58%	2	88
							58%	2	88
							48%	206	310
							58%	2	88
							55%	5	91
							43%	373	492
							45%	212	316
							55%	2	88
							56%	2	91
							38%	310	486
							32%	310	492
							50%	209	304
							38%	188	319
							57%	5	88
							54%	2	88
							57%	5	88

							57%	5	88
							58%	5	88
							55%	2	88
							55%	5	91
							51%	5	88
							55%	209	295
							48%	188	286
							53%	2	88
							51%	2	88
							54%	212	304
							48%	212	304
							55%	2	88
							55%	2	88
							55%	5	91
							50%	2	91
							46%	209	304
							41%	188	304
							45%	194	319
							48%	5	91
							42%	185	310
							51%	2	82
							45%	2	91
							47%	2	100
							41%	194	304
							51%	5	91
							46%	209	304
							40%	200	319
							36%	179	310
							55%	2	88
							47%	403	522

							46%	209	304
							44%	197	304
							53%	5	88
							50%	5	88
							51%	2	88
							41%	200	310
							53%	5	88
							44%	2	91
							53%	5	91
							45%	212	304
							48%	209	307
							54%	5	91
							48%	212	304
							45%	209	307
							53%	5	88
							45%	212	310
							42%	212	319
							51%	2	91
							43%	209	304
							45%	212	310
							47%	206	313
							46%	206	304
							40%	188	304
							48%	2	88
							53%	5	88
							53%	5	88
							48%	2	88
							46%	2	91
							50%	5	88
							42%	185	304

							41%	200	319
							46%	5	88
							48%	2	88
							46%	221	304
							45%	212	304
							50%	5	88
							48%	2	91
							48%	2	88
							48%	2	88
							47%	212	304
							53%	5	88
							42%	209	307
							44%	5	94
							46%	188	304
							41%	212	319
							37%	188	304
							58%	2	88
							48%	2	88
							50%	5	88
							51%	2	88
							52%	5	79
							50%	5	88
							44%	5	91
							51%	2	88
							50%	2	91
							46%	2	88
							46%	215	304
							45%	212	316
							40%	221	316
							50%	5	88

							304
						212	304
						212	304
						209	88
						2	91
						5	88
						5	88
						2	88
						2	88
						5	91
						2	88
						2	307
						209	304
						209	304
						206	304
						209	310
						200	307
						5	76
						14	79
						2	88
						5	88
						5	88
						212	304
						203	304
						212	319
						5	88
						5	97
						209	304
						188	304
						188	310
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						52%	

							48%	2	88
							48%	2	88
							48%	212	304
							41%	212	304
							38%	188	304
							52%	14	88
							44%	2	88
							51%	5	88
							41%	188	304
							40%	209	304
							40%	212	307
							40%	212	307
							48%	236	310
							41%	212	304
							40%	209	304
							37%	185	304
							35%	185	304
							53%	23	88
							46%	5	88
							54%	23	88
							50%	203	283
							44%	2	88
							41%	212	304
							43%	209	304
							61%	32	88
							51%	23	88
							50%	5	79
							41%	5	91
							40%	197	304
							50%	2	67

36%	5	91
38%	188	283
45%	2	88
45%	5	73
38%	212	310
47%	310	366
45%	209	274
37%	212	292
45%	212	304
41%	212	304
41%	488	595
38%	432	509
44%	2	67
50%	200	256
45%	2	67
37%	5	88
52%	456	506
47%	2	64
50%	485	532
35%	399	497
72%	488	520
53%	488	532
53%	488	532
45%	429	494
57%	491	532
40%	488	562
41%	451	522
39%	188	271
54%	488	520
63%	488	520

HPDRZ11	HPDRZ11R	1898	blastx.2	(AF012086) Ran. binding protein 2 [Homo sapiens]	gb AAC05596.1	40%	488	553
						63%	488	520
						50%	488	535
						44%	491	544
						42%	476	532
						37%	432	509
						40%	282	1
						31%	321	49
						32%	584	273
						40%	503	279
						36%	521	303
						42%	521	303
						60%	81	22
						53%	81	4
						53%	81	4
						44%	81	1
						55%	78	1
						50%	78	1
						56%	75	1
						48%	81	1
						53%	78	1
						52%	75	1
						48%	75	1
						42%	81	4
						44%	534	481
						98%	67	351
						48%	34	339
						60%	347	640
						50%	486	746
						46%	637	717

HPDRZ29	HPDRZ29R	1899	blastx.2	Lsc homologue [Homo sapiens]	emb CAA70356.1	50%	496	537
HPDVA01	HPDVA01R	1900	blastx.2	(AF153685) truncated calcium binding protein [Homo sapiens]	gb AAD51611.1 AF153685_1	81%	720	484
HPDVA06	HPDVA06R	1901	blastx.2	proteasome subunit HsN3 [Homo sapiens]	dbj BAA05647.1	87%	243	359
HPDVB70	HPDVB70R	1903	blastx.2	Ig mu chain C region, membrane-bound	pir S16510 MHUM	93%	92	820
HPDVC28	HPDVC28R	1904	blastx.2	splice form - human retrovirus-related polypolyprotein pseudogene - human 1	pir A44282 A44282	26%	11	706
HPDVG06	HPDVG06R	1906	blastx.2	immunoglobulin M heavy chain [Homo sapiens]	emb CAA47708.1	84%	62	436
HPDVI25	HPDVI25R	1908	blastx.2	APEX nuclease [Homo sapiens]	dbj BAA02633.1	99%	3	326
HPDVI95	HPDVI95R	1909	blastx.2	(AF067370) cytoplasmic dynein light chain; Tctex-1 [Bos taurus]	gb AAC39268.1	83%	- 94	417
HPDVK79	HPDVK79R	1911	blastx.2	TRANSCRIPTION FACTOR BTF3 (RNA POLYMERASE B TRANSCRIPTION 1	sp Q64152 BTF3_M OUSE	50%	334	633
HPDVK93	HPDVK93R	1912	blastx.2	ribosomal protein L18a - rat	pir S03957 R5RT18	100%	3	338
						77%	61	570
						89%	116	634

HPDVL45	HPDVL45R	1914	blastx.2	cell cycle checkpoint control protein [Homo sapiens]	gb AAB39928.1	100%	4	303
HPDVL52	HPDVL52R	1915	blastx.2	hNop56 [Homo sapiens]	emb CAA72789.1	98% 56% 60% 29% 27% 31% 29% 28%	96 269 418 409 418 326 418 460	293 625 660 561 546 439 570 630
HPDVM61	HPDVM61R	1916	blastx.2	(AF123880) gag polypeptide [multiple sclerosis associated retrovirus element]	gb AAD48374.1	44%	5	268
HPDVM63	HPDVM63R	1917	blastx.2	(AF019036) human IgG1 neutralizing heavy chain with leader 1	gb AAF21613.1	97%	1	573
HPDVM86	HPDVM86R	1918	blastx.2	gamma-interferon-inducible protein precursor [Homo sapiens]	gb AAA36105.1	91% 100%	35 4	406 51
HPDVO67	HPDVO67R	1919	blastx.2	(AC005954) ZO-3 [Homo sapiens]	gb AAC72274.1	96% 84% 67% 41%	1 188 396 334	189 394 521 549
HPDVT37	HPDVT37R	1923	blastx.2	JUN-D protein [Mus musculus]	gb AAA39345.1	54% 78%	16 240	231 281
HPDVU28	HPDVU28	1924	blastx.2	protein phosphatase 2C	emb CAA74245.1	96%	163	693

HPDVU72	R	1925	blastx.2	gamma [Homo sapiens] similar to the Drosophila splicing regulator, 1 [Homo sapiens]	gb AAA19604.1	100% 37%	3 51	497 434
HPDVU88	HPDVU88 R	1926	blastx.2	glutathione peroxidase [Homo sapiens]	gb AAA67540.1	91% 72%	51 595	599 648
HPDVV78	HPDVV78 R	1927	blastx.2	keratin 18 [Homo sapiens]	gb AAA59461.1	66% 85%	129 2	638 124
HPDWA88	HPDWA88 R	1929	blastx.2	calcium binding protein [Homo sapiens]	dbj BAA23325.1	94%	168	473
HPDWC30	HPDWC30 R	1931	blastx.2	GlcNac-1-P transferase [Homo sapiens]	emb CAB04787.1	85%	285	404
HPDWD67	HPDWD67 R	1934	blastx.2	open reading frame (458 AA) [Homo sapiens]	emb CAA36054.1	79%	319	14
HPDWD69	HPDWD69 R	1935	blastx.2	ribosomal protein S26 [Homo sapiens]	gb AAC26987.1	100%	9	353
HPDWD81	HPDWD81 R	1936	blastx.2	HLA-DRB4*0103 [Homo sapiens]	emb CAB06483.1	99% 63% 75% 44%	4 333 479 460	330 593 526 513
HPDWE11	HPDWE11 R	1937	blastx.2	polyadenylate binding protein [Homo sapiens]	gb AAB97309.1	82%	2	121
HPDWF93	HPDWF93 R	1939	blastx.2	Nascent polypeptide associated complex alpha subunit [Homo sapiens]	emb CAA56869.1	91%	16	483
HPDWL56	HPDWL56	1941	blastx.2	complement factor B	gb AAA16820.1	96%	83	379

	R			[Homo sapiens]				89%	660	770
HPDWN46	HPDWN46	1943	blastx.2	p67 myc protein [Homo sapiens]		dbj BAA01374.2		38%	83	145
HPDWN65	HPDWN65	1944	blastx.2	ribosomal protein S6 [Homo sapiens]		gb AAA60287.1		100%	4	468
HPDWN69	HPDWN69	1945	blastx.2	cell surface glycoprotein [Homo sapiens]		gb AAA36033.1		66%	468	566
HPDWO50	HPDWO50	1948	blastx.2	5S ribosomal protein [Mus musculus]		emb CAA73041.1		50%	94	468
HPDWO61	HPDWO61	1949	blastx.2	(AL049783) hypothetical protein [Homo sapiens]		emb CAB42441.1		73%	77	379
HPDWO82	HPDWO82	1950	blastx.2	cpn10 protein [Bos taurus]		emb CAA49288.1		88%	3	95
HPDWS61	HPDWS61	1951	blastx.2	unknown product specific to adipose tissue [Homo sapiens]		dbj BAA08226.1		98%	54	377
HPDWT55	HPDWT55	1952	blastx.2	alanine aminotransferase [Homo sapiens]		dbj BAA01186.1		66%	379	528
HPDWT56	HPDWT56	1953	blastx.2	(AF033095) testis enhanced gene transcript protein [Homo 1]		gb AAB87479.1		45%	416	535
HPDWU47	HPDWU47	1954	blastx.2	90-kDa heat shock protein [Sus scrofa]		gb AAC48718.1		97%	44	343
								100%	37	342
								97%	94	321
								100%	3	503
								89%	66	650
								100%	620	694
								83%	697	750
								93%	58	678
								62%	662	757

HPDWU55	HPDWU55 R	1955	blastx.2	protein disulfide isomerase-related protein (PDIR) [Homo sapiens]	dbj BAA08451.1	94%	1	726
HPDWU60	HPDWU60 R	1956	blastx.2	(AF151063) HSPC229 [Homo sapiens]	gb AAF36149.1 AF1 51063.1	37%	1	624
HPDWU63	HPDWU63 R	1957	blastx.2	cytokeratin 15 (AA 1 - 456) [Homo sapiens]	emb CAA30535.1	27%	1	636
HSCPJ17	HSCPJ17R	1962	blastx.2	(AL031670) dJ681N20.2 (similar to FTLL1(ferritin, light 1	emb CAB43181.1	93%	176	565
HSDIA22	HSDIA22R	1963	blastx.2	ATPase 6 [Homo sapiens]	emb CAA24031.1	80%	598	657
HSDIX73	HSDIX73R	1965	blastx.2	NADH dehydrogenase subunit 4L [Homo sapiens]	dbj BAA07296.1	100%	2	370
HSDZJ21	HSDZJ21R	1968	blastx.2	cytochrome-c oxidase (EC 1.9.3.1) chain I - western lowland 1	pir C59153 C59153	82%	- 1	105
HSIFF84	HSIFF84R	1969	blastx.2	(AK002129) unnamed protein product [Homo sapiens]	dbj BAA92096.1	78%	143	6
HSKJR50	HSKJR50R	1970	blastx.2	translation initiation factor 3 47 kDa subunit [Homo sapiens]	gb AAD03467.1	86%	2	337
HSLHT27	HSLHT27R	1971	blastx.2	URF A6L (NADH dehydrogenase subunit)	emb CAA24030.1	98%	2	289
						50%	169	498
						49%	11	247
						45%	342	566
						80%	2	139
						66%	2	121

HSODB16	HSODB16R	1972	blastx.2	[Homo sapiens] cytochrome oxidase subunit II [Homo sapiens]	gb AA20843.1	93%	1	651
HSPSB24	HSPSB24R	1973	blastx.2	(AF076191) gamma- actin [Trichosurus vulpecula]	gb AAC26520.1	90%	61	732
HSPSB70	HSPSB70R	1974	blastx.2	BBC1 [Homo sapiens]	emb CAA45963.1	100%	3	539
HSPSB74	HSPSB74R	1975	blastx.2	WT1 [Xenopus laevis]	dbj BAA11522.1	98%	1	162
HSPSB80	HSPSB80R	1976	blastx.2	unc-18homologue [Homo sapiens]	dbj BAA19482.1	92%	2	691
HSPSC30	HSPSC30R	1977	blastx.2	cell surface glycoprotein [Homo sapiens]	gb AA36033.1	91% 83% 100%	124 4 309	318 180 374
HSPSE86	HSPSE86R	1978	blastx.2	(AF161507) HSPC158 [Homo sapiens]	gb AAF29122.1 AF1 61507_1	91% 62% 54%	3 302 477	338 667 626
HSPSG03	HSPSG03R	1979	blastx.2	protein phosphatase 2A 65 kDa regulatory subunit, alpha isoform [Sus scrofa]	emb CAA84414.1	100%	3	191
HSPSG13	HSPSG13R	1980	blastx.2	protein p68 (AA 1-614) [Homo sapiens]	emb CAA33751.1	95% 76%	221 738	739 788
HSPSG42	HSPSG42R	1981	blastx.2	(AF056490) cAMP- specific phosphodiesterase 8A [Homo sapiens]	gb AAC39763.1	98%	3	554
HSPSG50	HSPSG50R	1982	blastx.2	(AB036829) skeletal muscle and kidney	dbj BAA92340.1	80%	132	578

HSPSG89	HSPSG89R	1983	blastx.2	enriched inositol phosphatase [Homo sapiens] (AF081484) alpha-tubulin isoform 1 [Homo sapiens]	gb AAC31959.1	97% 66%	106 629	645 700
HSPSH39	HSPSH39R	1984	blastx.2	(AB015610) ribosomal protein S4X [Chlorocebus aethiops]	dbj BAA36501.1	87%	68	772
HSPSH41	HSPSH41R	1985	blastx.2	SP-40,40 prepropeptide (AA -22 to 427) [Homo sapiens]	emb CAA32847.1	94% 95% 69%	129 367 480	404 498 683
HSPSH49	HSPSH49R	1986	blastx.2	ribosomal protein S6 [Homo sapiens]	gb AAA60289.1	83%	96	821
HSPSI65	HSPSI65R	1987	blastx.2	ribosomal protein L5 [Homo sapiens]	gb AAA85654.1	89%	3	755
HSPSJ71	HSPSJ71R	1988	blastx.2	medium tumor antigen-associated 61-kD protein [Homo sapiens]	gb AAA35531.1	91% 54%	2 660	346 749
HSPSJ72	HSPSJ72R	1989	blastx.2	BST-2 [Homo sapiens]	dbj BAA05679.1	92% 98% 50%	97 410 561	432 592 632
HSPSQ22	HSPSQ22R	1990	blastx.2	UbcH5C [Homo sapiens]	gb AAA91461.1	100%	7	339
HSPSQ57	HSPSQ57R	1991	blastx.2	(AF044671) MM46 [Homo sapiens]	gb AAD02337.1	100%	16	327
HSPSY67	HSPSY67R	1992	blastx.2	MITOGEN-ACTIVATED PROTEIN KINASE 3	sp P27361 MK03_HUMAN	99% 51% 47%	2 385 402	385 537 545

				(EC 2.7.1.-) 1 1 1				
HSPSZ69	HSPSZ69R	1993	blastx.2	unnamed protein product [unidentified]	emb CAB69291.1	98% 90%	2 285	283 317
HSPTA57	HSPTA57R	1994	blastx.2	scar protein [Homo sapiens]	gb AAA36597.1	64% 100%	337 318	735 338
HSPTN57	HSPTN57R	1995	blastx.2	(AB015610) ribosomal protein S4X [Chlorocebus aethiops]	dbj BAA36501.1	55% 37% 53%	2 178 356	157 360 400
HSSDM17	HSSDM17R	1996	blastx.2	(AL137714) hypothetical protein [Homo sapiens]	emb CAB70887.1	94%	55	210
HTLCU84	HTLCU84R	2001	blastx.2	RNA polymerase II elongation factor-like protein [Homo sapiens]	emb CAA87392.1	71%	185	541
HTSHG06	HTSHG06R	2002	blastx.2	URF 2 (NADH dehydrogenase subunit) [Homo sapiens]	emb CAA24027.1	87% 94%	107 1	364 105
HULAP70	HULAP70R	2005	blastx.2	cytochrome c oxidase subunit VIII precursor [Homo sapiens]	gb AAA99313.1	100%	251	349
HUSGA11	HUSGA11R	2006	blastx.2	carbonate dehydratase [Homo sapiens]	emb CAA59331.1	63% 100%	220 183	471 218
HUVFA39	HUVFA39R	2009	blastx.2	extensin [Volvox carteri]	emb CAA46283.1	34% 34%	460 436	92 8
HVCAA31	HVCAA31R	2010	blastx.2	myosin regulatory light chain [Homo sapiens]	gb AAA67367.1	98%	103	618
HVCAA37	HVCAA37R	2011	blastx.2	complement factor B [Homo sapiens]	gb AAA16820.1	96% 88%	322 3	687 137
HVCAA94	HVCAA94R	2013	blastx.2	F-1-ATPase beta-	gb AAA30395.1	95%	1	435

	R				subunit precursor [Bos taurus]		50%	440	643
HVCAB02	HVCAB02	2014	blastx.2		calciphosine [Homo sapiens]	emb CAA66609.1	100%	489	512
HVCAB03	HVCAB03	2015	blastx.2		40S ribosomal protein S12 [Sus scrofa]	emb CAA55946.1	76%	128	703
HVCAB18	HVCAB18	2016	blastx.2		human homolog of DnaJ protein [Homo sapiens]	dbj BAA02656.1	67%	486	644
							92%	386	664
							88%	133	288
							89%	60	794
HVCAB52	HVCAB52	2018	blastx.2		'human homologue of rat ribosomal protein L9' [Homo sapiens]	dbj BAA03401.1	98%	67	612
HVCAB57	HVCAB57	2019	blastx.2		glyceraldehyde 3-phosphate dehydrogenase (EC 1.2.1.12) [Homo sapiens]	gb AA52496.1	98%	1	333
							70%	330	524
HVCAB88	HVCAB88	2020	blastx.2		(AL022721) dJ109F14.2 (60S Ribosomal Protein RPL10A) [Homo sapiens]	emb CAB38627.1	99%	89	739
HVCAC42	HVCAC42	2021	blastx.2		diphtheria toxin receptor associated protein [Chlorocebus aethiops]	dbj BAA01569.1	67%	184	414
							86%	119	184
							38%	305	430
HVCAD52	HVCAD52	2022	blastx.2		translin [Homo sapiens]	emb CAA55341.1	72%	19	291
HVCAE01	HVCAE01	2023	blastx.2		laminin-binding protein [Homo sapiens]	gb AAA36161.1	99%	64	606
							47%	633	758

HVCAE15	HVCAE15 R	2024	blastx.2	lymphocyte antigen [Homo sapiens]	gb AAA59705.1	91%	3	695
HVCAE22	HVCAE22 R	2025	blastx.2	proteasome subunit C2 [Homo sapiens]	dbj BAA00656.1	97% 90%	86 489	487 554
HVCAE56	HVCAE56 R	2026	blastx.2	complement component C3 [Homo sapiens]	gb AAA85332.1	74%	75	707
HVCAG56	HVCAG56 R	2027	blastx.2	ribosomal protein L7 [Homo sapiens]	emb CAA37139.1	99%	3	551
HVCAH03	HVCAH03 R	2029	blastx.2	(AF030249) putative dienoyl-CoA isomerase [Homo sapiens]	gb AAB86485.1	96% 62%	63 577	599 657
HVCAH17	HVCAH17 R	2030	blastx.2	precursor [Homo sapiens]	emb CAA68392.1	90% 92%	1 299	294 340
HVCAH56	HVCAH56 R	2031	blastx.2	ribosomal protein L3 [Homo sapiens]	emb CAA51839.1	97%	3	407
HVCAI08	HVCAI08R	2032	blastx.2	(AF008304) protein inhibitor of neuronal nitric oxide synthase [Oryctolagus cuniculus]	gb AAC32530.1	100%	130	375
HVCAI79	HVCAI79R	2034	blastx.2	sortilin [Homo sapiens]	emb CAA66904.1	80%	2	559
HVCAJ27	HVCAJ27R	2035	blastx.2	(AK000449) unnamed protein product [Homo sapiens]	dbj BAA91172.1	99%	88	537
HVCAJ81	HVCAJ81R	2036	blastx.2	(AB036060) ubiquitin [Oncorhynchus mykiss]	dbj BAA88568.1	100% 81%	97 404	405 469
HVCAJ95	HVCAJ95R	2037	blastx.2	(AF073298) small EDRK-rich factor 2	gb AAC63516.1	100%	34	210

HVCAK02	HVCAK02 R	2038	blastx.2	[Homo sapiens] hnRNP-E2 [Homo sapiens]	emb CAA55015.1	89% 90%	90 3	467 92
HVCAL06	HVCAL06 R	2039	blastx.2	23 kD highly basic protein [Homo sapiens]	emb CAA40254.1	96% 30% 39%	3 302 432	308 559 554
HVCAO17	HVCAO17 R	2040	blastx.2	Nm23 protein [Homo sapiens]	emb CAA35621.1	70%	4	531
HVCAO63	HVCAO63 R	2041	blastx.2	similar to tubulin alpha-2 chain [Caenorhabditis elegans]	emb CAA85463.1	76% 72% 47%	82 269 342	276 322 410
HVCAP89	HVCAP89R	2042	blastx.2	CTP synthetase homolog [Mus musculus]	gb AABI7729.1	83% 67% 29% 80%	69 509 520 681	512 643 669 710
HVCAQ53	HVCAQ53 R	2043	blastx.2	RPS16 [Homo sapiens]	gb AAA60583.1	100%	43	480
HVCAR87	HVCAR87 R	2045	blastx.2	glyceraldehyde 3-phosphate dehydrogenase (EC 1.2.1.12) [Homo sapiens]	gb AAA52496.1	74%	54	536
HVCAS08	HVCAS08R	2046	blastx.2	triose-phosphate isomerase [Pan troglodytes]	gb AAA35438.1	74% 55%	77 609	796 803
HVCAS52	HVCAS52R	2047	blastx.2	proteasome subunit C8 [Homo sapiens]	dbj BAA00659.1	94%	1	579
HVCAU64	HVCAU64	2049	blastx.2	23 kD highly basic	emb CAA40254.1	97%	57	401

	R			protein [Homo sapiens]				
HVCBD18	HVCBD18 R	2050	blastx.2	(AK000385) unnamed protein product [Homo sapiens]	dbj BAA91131.1	59%	396	196
HVCBE76	HVCBE76R	2051	blastx.2	ribosomal protein L27 [Homo sapiens]	gb AAA19815.1	80%	24	431
HVCBF38	HVCBF38R	2053	blastx.2	neurofibromatosis type 1 protein [Homo sapiens]	gb AAA74897.1	85%	6	236
						41%	274	636
						71%	483	524
						42%	517	594
						88%	452	478
HVCBF89	HVCBF89R	2054	blastx.2	23 kD highly basic protein [Homo sapiens]	emb CAA40254.1	78%	41	325
						70%	666	725
						50%	590	679
HVCBG01	HVCBG01 R	2055	blastx.2	(AF184170) elongation factor 1-alpha [Sparus aurata]	gb AAD56406.1 AF1 84170_1	96%	43	237
						37%	300	572
						47%	353	535
						40%	553	627
HVCBQ31	HVCBQ31 R	2056	blastx.2	23 kD highly basic protein [Homo sapiens]	emb CAA40254.1	90%	65	343
						53%	327	647
						45%	328	663
						43%	482	559
HVCCA08	HVCCA08 R	2057	blastx.2	neurofibromatosis type- 1-GTPase activating- protein type III [Mus musculus]	dbj BAA06395.1	60%	23	256
HVCCK34	HVCCK34 R	2058	blastx.2	23 kD highly basic protein [Homo sapiens]	emb CAA40254.1	99%	94	696
HVCCV93	HVCCV93 R	2060	blastx.2	AICAR formyltransferase/IMP	gb AAA97405.1	92%	206	454
						58%	454	648

HVCDD19	HVCDD19 R	2062	blastx.2	cyclohydrolase bifunctional enzyme [Homo sapiens] 1-8U [Homo sapiens]	emb CAA40626.1	59%	564	674
HVCDF50	HVCDF50R	2063	blastx.2	similar to mouse Int-6 [Homo sapiens]	gb AAB58251.1	95% 63%	3 343	341 618
HVCDH77	HVCDH77 R	2064	blastx.2	3-methyl-adenine DNA glycosylase [Homo sapiens]	emb CAA93540.1	98%	2	640
HVVAB37	HVVAB37 R	2066	blastx.2	Ig mu chain C region - dog	pir A93131 MHDG	39% 40% 39% 65% 38%	215 78 61 2 294	700 401 267 61 347
HVVAC18	HVVAC18 R	2067	blastx.2	(AF035421) glyceraldehyde 3- phosphate dehydrogenase [Ovis 1]	gb AAB88484.1	47%	59	379
HVVAE73	HVVAE73 R	2069	blastx.2	(AJ001612) L-3- phosphoserine- phosphatase homologue [Homo sapiens]	emb CAA04865.1	91%	111	326
HVVAH91	HVVAH91 R	2071	blastx.2	(AL050109) hypothetical protein [Homo sapiens]	emb CAB43277.1	87%	54	245
HVVAI03	HVVAI03R	2072	blastx.2	ribosomal protein L31 (AA 1-125) [Homo sapiens]	emb CAA34066.1	98% 88% 61%	32 303 7	304 383 45

HVVAJ23	HVVAJ23R	2073	blastx.2	immunoglobulin lambda-chain [Homo sapiens]	gb AAA02915.1	80%	9	563
HVVAK46	HVVAK46 R	2077	blastx.2	v-fos transformation effector protein [Homo sapiens]	gb AAA58487.1	96% 61%	3 707	746 769
HVVAK85	HVVAK85 R	2079	blastx.2	unnamed protein product [unidentified]	emb CAA03726.1	94%	14	370
HVVAL81	HVVAL81 R	2080	blastx.2	phospholipase A2 [synthetic construct]	emb CAA01645.1	81%	157	471
HVVAS27	HVVAS27 RP00B	2082	blastx.2	ribosomal protein S17 [Homo sapiens]	gb AAA60284.1	99%	9	413
HVVAW2 6	HVVAW26 R	2083	blastx.2	23 kD highly basic protein [Homo sapiens]	emb CAA40254.1	74% 56% 78%	7 272 447	444 601 503
HVVB091	HVVB091 RP00B	2084	blastx.2	gamma non-muscle actin [Oryctolagus cuniculus]	emb CAA43140.1	99%	2	436
HVVB09	HVVB09R	2085	blastx.2	(AK001810) unnamed protein product [Homo sapiens]	dbj BAA91922.1	89%	3	206
HVVBH88	HVVBH88 R	2087	blastx.2	Na,K-ATPase alpha- subunit [Homo sapiens]	dbj BAA00061.1	74%	1	519
HVVB16	HVVB16R	2088	blastx.2	IgG [Homo sapiens]	gb AAA02914.1	69% 92%	32 577	562 618
HVVB08	HVVB08R	2089	blastx.2	(AB014876) ribosomal protein L13 [Cricetus griseus]	dbj BAA34291.1	81% 96% 52%	156 40 419	479 234 601
HVVB055	HVVB055R	2090	blastx.2	ribosomal protein S17	gb AAA60284.1	99%	9	413

	P00B			[Homo sapiens] (AB022653) anti- Entamoeba histolytica immunoglobulin kappa 1				
HVVBK13	HVVBK13 R	2091	blastx.2		dbj BAA82102.1	88% 62% 43%	73 633 617	618 713 733
HVVBO65	HVVBO65 R	2092	blastx.2	immunoglobulin lambda light chain [Homo sapiens]	emb CAA75033.1	68%	12	623
HVVBO88	HVVBO88 R	2093	blastx.2	immunoglobulin heavy chain VH-III region [Homo sapiens]	gb AAA98800.1	82%	77	481
HVVBR70	HVVBR70 RP00B	2094	blastx.2	immunoglobulin lambda light chain [Homo sapiens]	emb CAA40958.1	68% 67%	20 318	334 491
HVVBT60	HVVBT60 R	2096	blastx.2	HYPOTHETICAL PROTEIN (FRAGMENT).	sp Q16465 YZA1_H UMAN	100%	448	98
HVVCB04	HVVCB04 R	2098	blastx.2	heavy chain antibody 3D6 [synthetic construct]	emb CAA01549.1	69% 70% 30%	65 478 487	484 609 603
HVVCB08	HVVCB08 R	2099	blastx.2	(AB022653) anti- Entamoeba histolytica immunoglobulin kappa 1	dbj BAA82102.1	76%	73	735
HVVCC06	HVVCC06 R	2100	blastx.2	(AB005894) ecalectin [Homo sapiens]	dbj BAA31542.1	72% 85%	206 144	325 203
HVVCD81	HVVCD81 R	2102	blastx.2	glutathione S- transferase-pi [Homo sapiens]	gb AAA56823.1	96%	80	640

HVVC90	HVVC90	2104	blastx.2	type II mesothelial keratin K7 [Homo sapiens]	gb AAA36146.1	82%	98	748
HVVC65	HVVC65	2106	blastx.2	80K-H protein [Homo sapiens]	gb AAA52493.1	94%	2	214
HVVC38	HVVC38R	2107	blastx.2	immunoglobulin lambda light chain [Homo sapiens]	emb CAA37883.1	84%	114	467
HVVC29	HVVC29	2108	blastx.2	FB19 protein [Homo sapiens]	emb CAA73697.1	95%	1	375
						65%	1	384
						66%	1	375
						65%	19	375
						69%	19	375
						63%	19	375
						52%	19	378
						63%	1	285
						47%	19	387
						44%	19	378
HVVC31	HVVC31	2109	blastx.2	(AF061034) FIP2 [Homo sapiens]	gb AAC16046.1	91%	14	349
						98%	310	573
						60%	576	773
						25%	361	540
HVVC46	HVVC46	2110	blastx.2	phosphoglycerate kinase (EC 2.7.2.3) [Homo sapiens]	gb AAA60078.1	100%	3	350
HVVC93	HVVC93	2111	blastx.2	(AB021288) beta 2-microglobulin [Homo sapiens]	dbj BAA35182.1	100%	49	405

HVVCH28	HVVCH28 R	2112	blastx.2	(AF104913) eukaryotic protein synthesis initiation factor [Homo sapiens]	gb AAC82471.1	100%	3	350
HVVCI28	HVVCI28R	2113	blastx.2	extracellular matrix protein BM-40 (AA 1 - 303) [Homo sapiens]	emb CAA68724.1	100%	3	119
HVVCI50	HVVCI50R	2114	blastx.2	3D6 antibody light chain [synthetic construct]	emb CAA01550.1	89% 79% 75%	44 382 644	403 663 739
HVVCI85	HVVCI85R	2115	blastx.2	Ig gamma chain C region - chimpanzee	pir PT0207 PT0207	96% 80%	3 599	599 688
HVVCJ51	HVVCJ51R	2116	blastx.2	lysophosphatidic acid acyltransferase-beta [Homo sapiens]	gb AAB58776.1	94% 87%	1 273	261 371
HVVCK78	HVVCK78 R	2118	blastx.2	Ig light chain V11 region [Homo sapiens]	gb AAA20217.1	85% 77% 84%	27 242 298	248 307 336
HVVCL52	HVVCL52 R	2119	blastx.2	NuMA protein [Homo sapiens]	emb CAA77670.1	99%	1	339
HVVCL73	HVVCL73 R	2120	blastx.2	ribosomal protein small subunit [Homo sapiens]	gb AAA35682.1	100% 91%	14 674	583 775
HVVCM67	HVVCM67 R	2121	blastx.2	Immunoglobulin lambda chain [Homo sapiens]	gb AAC37563.1	95% 78%	3 283	284 378
HVVCM84	HVVCM84 R	2122	blastx.2	apoferritin H chain [Homo sapiens]	emb CAA25086.1	68%	3	407
HVVCN20	HVVCN20 R	2123	blastx.2	Hin-2 [Homo sapiens]	gb AAA64187.1	89% 71%	68 4	286 87

HVVCN54	HVVCN54 R	2125	blastx.2	[Human Ig rearranged gamma chain mRNA, V-J-C region and complete cds.], gene product [Homo sapiens]	gb AAA73002.1	70% 78%	17 17	388 337
HVVC013	HVVC013 R	2127	blastx.2	3D6 antibody light chain [synthetic construct]	emb CAA01550.1	79% 48%	8 549	550 695
HVVC016	HVVC016 R	2128	blastx.2	alpha SNAP [Homo sapiens]	gb AAC80170.1	96%	251	346
HVVC087	HVVC087 R	2129	blastx.2	(AF191829) heat-shock protein [Littorina plena]	gb AAF12788.1 AF1 91829_1	90% 51% 93%	30 359 457	389 469 501
HVVC041	HVVC041R	2130	blastx.2	(AB019120) seven transmembrane receptor [Rattus norvegicus]	dbj BAA82518.1	52% 54%	2 573	436 644
HVVC088	HVVC088R	2131	blastx.2	(AC002528) alpha2(I) collagen [Homo sapiens]	gb AAB69977.1	88% 50% 49% 48% 47% 48% 49% 51% 48% 47% 47% 50%	15 3 3 3 6 3 3 3 15 15 15	470 302 299 299 299 290 272- 272 299 299 299 272

							47%	3	272
							46%	3	302
							53%	3	278
							48%	15	272
							46%	3	272
							45%	18	302
							51%	3	272
							45%	18	314
							47%	3	272
							46%	3	305
							49%	3	299
							45%	3	299
							44%	3	299
							45%	3	302
							45%	3	302
							48%	3	272
							45%	3	299
							51%	27	272
							44%	3	302
							49%	3	272
							45%	18	272
							47%	3	272
							47%	15	278
							48%	3	272
							45%	3	299
							45%	18	299
							43%	18	299
							47%	3	272
							42%	3	302
							45%	3	299

HVVCQ49	HVVCQ49 R	2133	blastx.2	(AF076191) gamma-actin [Trichosurus vulpecula]			48%	18	272
HVVCQ93	HVVCQ93 R	2135	blastx.2	90kDa heat shock protein [Homo sapiens]			45%	15	299
HVVC28	HVVC28R	2136	blastx.2	Rab5c protein [Canis familiaris]			42%	6	272
HVVC32	HVVC32R	2137	blastx.2	(AF015283) selenoprotein W [Homo sapiens]			44%	3	272
HVVCU50	HVVCU50 R	2141	blastx.2	ubiquitin-like protein [Homo sapiens]			43%	18	299
							48%	3	272
							42%	3	302
							43%	3	299
							44%	15	272
							43%	3	272
							43%	3	299
							43%	3	272
							46%	18	272
							43%	3	299
							43%	3	299
							41%	3	302
							38%	319	480
							43%	583	696
							76%	54	629
							89%	7	699
							91%	183	293
							80%	403	507
							100%	95	217
							100%	65	307

HVVCV41	HVVCV41 R	2142	blastx.2	(AB010491) natriuretic peptide A type receptor [Homo sapiens]	dbj BAA31199.1	100%	2 309 283 399	292 482 309 479
HVVCW7 5	HVVCW75 R	2144	blastx.2	(AK000419) unnamed protein product [Homo sapiens]	dbj BAA91151.1	100%	3	410
HVVCX46	HVVCX46 R	2146	blastx.2	p48 [Homo sapiens]	gb AAB38382.1	54% 50% 100% 51%	71 418 354 654	712 747 431 734
HVVCY29	HVVCY29 R	2147	blastx.2	immunoglobulin gamma-2 heavy chain [Homo sapiens]	emb CAB58438.1	97%	2	715
HVVCY55	HVVCY55 R	2148	blastx.2	Hrs [Homo sapiens]	dbj BAA23366.1	99%	2	511
HVVCY60	HVVCY60 R	2149	blastx.2	elongation factor-1 alpha-chain protein (EF-1-alpha) [Xenopus 1]	gb AAA49700.1	86% 38% 42%	1 498 557	555 716 763
HVVCY62	HVVCY62 R	2150	blastx.2	(AF113887) kappa 1 immunoglobulin light chain [Homo sapiens]	gb AAD29608.1	90%	3	620
HVVCY75	HVVCY75 R	2151	blastx.2	ribosomal protein L34 [Rattus rattus]	emb CAA32574.1	96%	394	477
HVVCY77	HVVCY77 R	2152	blastx.2	phospholipid transfer protein [Homo sapiens]	gb AAA36443.1	98%	2	598
HVVCZ18	HVVCZ18 R	2153	blastx.2	UDP-GalNAc:polypeptide N-	emb CAA63371.1	95%	423	542

HVVDH44	HVVDH44 R	2156	blastx.2	acetyl galactosaminyltransferase (GalNAc-T3) [Homo sapiens] (AF013622) immunoglobulin heavy chain variable region [Homo sapiens]	gb AAC39746.1	85%	20	562
HVVDM3	HVVDM23 R	2157	blastx.2	(AJ010446) immunoglobulin kappa light chain [Homo sapiens]	emb CAA09185.1	80% 74% 62%	81 308 541	338 502 588
HVVDM3	HVVDM31 R	2158	blastx.2	adenylyl cyclase-associated protein [Homo sapiens]	gb AAA35507.1	98%	3	446
HVVDM4	HVVDM45 R	2159	blastx.2	(AF016365) hexokinase I [Homo sapiens]	gb AAC15863.1	96%	66	155
HVVDM29	HVVDM29 R	2162	blastx.2	ADP, ATP carrier protein T2 - human	pir S03894 S03894	95% 25% 56%	8 29 615	643 559 683
HVVDM77	HVVDM77 R	2163	blastx.2	Lon protease-like protein [Homo sapiens]	emb CAA53625.1	97%	4	594
HVVDP70	HVVDP70 R	2164	blastx.2	SM22 alpha [Homo sapiens]	dbj BAA21839.1	92% 39% 48%	61 294 287	309 593 415
HVVDP46	HVVDP46 R	2165	blastx.2	dextrin [Sus scrofa]	dbj BAA14105.1	64% 56%	106 285	513 485
HVVDP49	HVVDP49 R	2166	blastx.2	calpain (EC 3.4.22.17) large chain 1 - rabbit (fragments)	pir A24815 A24815	97%	2	103

HVVD12	HVVD12 R	2167	blastx.2	Ig kappa chain NIG2 precursor - human	pir JE0244 JE0244	89%	91	726
HVVD21	HVVD21 R	2168	blastx.2	gamma subunit of CCT chaperonin [Homo sapiens]	emb CAA52808.1	95% 68%	74 690	727 746
HVVD35	HVVD35 R	2169	blastx.2	hevin [Homo sapiens]	emb CAA57650.1	88% 67%	80 636	736 803
HVVD29	HVVD29 R	2171	blastx.2	(AF065388) tetraspan NET-1 [Homo sapiens]	gb AAC17119.1	72%	121	612
HVVD44	HVVD44 R	2172	blastx.2	ch-TOG [Homo sapiens]	emb CAA63212.1	98%	2	460
HVVDW0 2	HVVDW02 R	2174	blastx.2	retinoic acid induced gene E [Homo sapiens]	emb CAA92321.1	79%	3	200
HVVDW6 1	HVVDW61 R	2175	blastx.2	chimeric monoklonal TSH antibody, gamma chain [synthetic construct]	emb CAA00676.1	86%	2	229
HVVDX90	HVVDX90 R	2177	blastx.2	(AF149822) mitotic checkpoint protein BUB3 [Mus musculus]	gb AAD38038.1 AF1 49822_1	84%	23	511
HWLME4 8	HWLME48 R	2181	blastx.2	calpain II [Sus scrofa]	gb AAB17381.1	95%	3	140
HWMB35	HWMB35 R	2183	blastx.2	ZZ:beta-Gal' IgG- binding fusion protein [unidentified cloning 1	gb AAB00807.1	96%	49	219

HWWEF90	HWWEF90 R	2185	blastx.2	(AL035461) dJ967N21.3 (novel protein similar to predicted 1	.emb CAB55274.1	95%	61	300
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[0048] Table 2 further characterizes certain encoded polypeptides of the invention, by providing the results of comparisons to protein and protein family databases. The first column provides a unique clone identifier, "Clone ID NO:", corresponding to a cDNA clone disclosed in Table 1. The second column provides the unique contig identifier, "Contig ID:" which allows correlation with the information in Table 1. The third column provides the sequence identifier, "SEQ ID NO:X", for the contig polynucleotide sequences. The fourth column provides the analysis method by which the homology/identity disclosed in the row was determined. The fifth column provides a description of PFam/NR hits having significant matches identified by each analysis. Column six provides the accession number of the PFam/NR hit disclosed in the fifth column. Column seven, "Score/Percent Identity", provides a quality score or the percent identity, of the hit disclosed in column five. Comparisons were made between polypeptides encoded by polynucleotides of the invention and a non-redundant protein database (herein referred to as "NR"), or a database of protein families (herein referred to as "PFam"), as described below.

[0049] The NR database, which comprises the NBRF PIR database, the NCBI GenPept database, and the SIB SwissProt and TrEMBL databases, was made non-redundant using the computer program nrdb2 (Warren Gish, Washington University in Saint Louis). Each of the polynucleotides shown in Table 1, column 3 (e.g., SEQ ID NO:X or the 'Query' sequence) was used to search against the NR database. The computer program BLASTX was used to compare a 6-frame translation of the Query sequence to the NR database (for information about the BLASTX algorithm please see Altshul et al., J. Mol. Biol. 215:403-410 (1990), and Gish et al., Nat. Genet. 3:266-272 (1993)). A description of the sequence that is most similar to the Query sequence (the highest scoring 'Subject') is shown in column five of Table 2 and the database accession number for that sequence is provided in column six. The highest scoring 'Subject' is reported in Table 2 if (a) the estimated probability that the match occurred by chance alone is less than 1.0×10^{-7} , and (b) the match was not to a known repetitive element. BLASTX returns alignments of short polypeptide segments of the Query and Subject sequences which share a high degree of similarity; these segments are known as High-Scoring Segment Pairs or HSPs. Table 2 reports the degree of similarity between the Query and the Subject for each HSP as a

percent identity in Column 7. The percent identity is determined by dividing the number of exact matches between the two aligned sequences in the HSP, dividing by the number of Query amino acids in the HSP and multiplying by 100. The polynucleotides of SEQ ID NO:X which encode the polypeptide sequence that generates an HSP are delineated by columns 8 and 9 of Table 2.

[0050] The PFam database, PFam version 5.2, (Sonnhammer et al., Nucl. Acids Res., 26:320-322, (1998)) consists of a series of multiple sequence alignments; one alignment for each protein family. Each multiple sequence alignment is converted into a probability model called a Hidden Markov Model, or HMM, that represents the position-specific variation among the sequences that make up the multiple sequence alignment (see, e.g., R. Durbin et al., *Biological sequence analysis: probabilistic models of proteins and nucleic acids*, Cambridge University Press, 1998 for the theory of HMMs). The program HMMER version 1.8 (Sean Eddy, Washington University in Saint Louis) was used to compare the predicted protein sequence for each Query sequence (SEQ ID NO:Y in Table 1) to each of the HMMs derived from PFam version 5.2. A HMM derived from PFam version 5.2 was said to be a significant match to a polypeptide of the invention if the score returned by HMMER 1.8 was greater than 0.8 times the HMMER 1.8 score obtained with the most distantly related known member of that protein family. The description of the PFam family which shares a significant match with a polypeptide of the invention is listed in column 5 of Table 2, and the database accession number of the PFam hit is provided in column 6. Column 7 provides the score returned by HMMER version 1.8 for the alignment. Columns 8 and 9 delineate the polynucleotides of SEQ ID NO:X which encode the polypeptide sequence which shows a significant match to a PFam protein family.

[0051] As mentioned, columns 8 and 9 in Table 2, "NT From" and "NT To", delineate the polynucleotides of "SEQ ID NO:X" that encode a polypeptide having a significant match to the PFam/NR database as disclosed in the fifth column of Table 2. In one embodiment, the invention provides a protein comprising, or alternatively consisting of, a polypeptide encoded by the polynucleotides of SEQ ID NO:X delineated in columns 8 and 9 of Table 2. Also provided are polynucleotides encoding such proteins, and the complementary strand thereto.

[0052] The nucleotide sequence SEQ ID NO:X and the translated SEQ ID NO:Y are sufficiently accurate and otherwise suitable for a variety of uses well known in the art and described further below. For instance, the nucleotide sequences of SEQ ID NO:X are useful for designing nucleic acid hybridization probes that will detect nucleic acid sequences contained in SEQ ID NO:X or the cDNA contained in Clone ID NO:Z. These probes will also hybridize to nucleic acid molecules in biological samples, thereby enabling immediate applications in chromosome mapping, linkage analysis, tissue identification and/or typing, and a variety of forensic and diagnostic methods of the invention. Similarly, polypeptides identified from SEQ ID NO:Y may be used to generate antibodies which bind specifically to these polypeptides, or fragments thereof, and/or to the polypeptides encoded by the cDNA clones identified in, for example, Table 1.

[0053] Nevertheless, DNA sequences generated by sequencing reactions can contain sequencing errors. The errors exist as misidentified nucleotides, or as insertions or deletions of nucleotides in the generated DNA sequence. The erroneously inserted or deleted nucleotides cause frame shifts in the reading frames of the predicted amino acid sequence. In these cases, the predicted amino acid sequence diverges from the actual amino acid sequence, even though the generated DNA sequence may be greater than 99.9% identical to the actual DNA sequence (for example, one base insertion or deletion in an open reading frame of over 1000 bases).

[0054] Accordingly, for those applications requiring precision in the nucleotide sequence or the amino acid sequence, the present invention provides not only the generated nucleotide sequence identified as SEQ ID NO:X, and a predicted translated amino acid sequence identified as SEQ ID NO:Y, but also a sample of plasmid DNA containing cDNA Clone ID NO:Z (deposited with the ATCC on June 5, 2000 and were given ATCC Deposit Nos. PTA-1982 and PTA-1985; and/or as set forth, for example, in Table 1, 6 and 7). The nucleotide sequence of each deposited clone can readily be determined by sequencing the deposited clone in accordance with known methods. Further, techniques known in the art can be used to verify the nucleotide sequences of SEQ ID NO:X. Techniques known in the art can be used to verify the nucleotide sequences of SEQ ID NO:X.